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MEMORANDUM

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Arizona Corporation Commission
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TO: Docket Control

FROM: Elijah Abinah
Director
Utilities Division

DATE: September 6, 2017

RE: IN THE MATTER OF THE NOTICE OF PROPOSED RULEMAKING REGARDING INTERCONNECTION OF DISTRIBUTED GENERATION FACILITIES (RE-00000A-07-0609)

SUBJECT: REQUEST FOR INFORMAL COMMENT ON STAFF'S REVISED DRAFT

Attached is a revised draft of the proposed Interconnection of Distributed Generation Facilities Rules ("Rules"). Staff has incorporated many of the comments received from interested stakeholders to the June 26, 2015 draft rules. Following is a brief summary of the major changes made to the proposed Rules as a result of the most recent round of stakeholder comments.

SUMMARY OF MAJOR CHANGES TO THE INTERCONNECTION DOCUMENT

R14-2-2603. Types of Generating Facilities

- This section has changed significantly as a result of Energy Freedom Coalition of America's ("EFCA") June 9, 2017 comments.[1] Staff would appreciate feedback regarding the language concerning "Exporting" and "Non-Exporting" systems.

R14-2-2613. Certification

- Specific technical standards and codes have been removed from the proposed Rules. Instead of including the specific codes and standards in the rules, the standards and codes would be listed in each Utility's Interconnection Manual. Listing the codes and standards in the Interconnection Manual rather than the rules, may obviate the need for new rulemaking proceedings every time a standard or code changes. If the codes and standards are in the Manual, stakeholders would simply file updates to the Interconnection Manual when new or revised codes or standards are published.

R14-2-2617. Screens

- Screen A: This screen has been updated based on comments from Western Resource Advocates ("WRA") which stated the minimum load criteria is better addressed in the Supplemental Review process.

[1] http://docket.images.azcc.gov/0000180354.pdf

- Screen E: The limit was raised from 10 kW to 20 kW taking into consideration comments received from WRA and other stakeholders.

- Screen I: Modified based on comments from WRA and Southwest Energy Efficiency Project ("SWEEP").

R14-2-2618. Level 1 Super Fast Track

- The system size has been increased from 10 kW to 20 kW. Additionally, the Generating Facility must meet screens (A), (E), and (F) whereas before the Generating Facility had to meet only screens (E) and (F).

R14-2-2619. Level 2 Fast Track

- The minimum system size criteria has been changed from 10 kW to 20 kW and the maximum system size criteria has been changed from 2 MW to 1 MW.

R14-2-2620. Level 3 Study Track

- The system size criteria is now 1 MW or greater and the track is designated for all systems that fail the requirements set forth in Level 1, Level 2, and the Supplemental Review process.

R14-2-2621. Supplemental Review

- A Supplemental Review process has been added, as suggested by multiple stakeholders.

R14-2-2623. Disconnect Switch Requirements

- A section regarding Disconnect Switches has been added, as suggested by APS and TEP.

R14-2-2624. Energy Storage System General Requirements

- A section regarding Energy Storage System Requirements has been added.

R14-2-2625. Advanced Inverter Requirements

- A section regarding Advanced Inverter Requirements has been added.

R14-2-2626. Dispute Resolution

- A section regarding Advanced Inverter Requirements has been added.

R14-2-2624. Pre-Application Report

- A section regarding Advanced Inverter Requirements has been added.

REQUEST FOR COMMENT

Interested parties are encouraged to provide informal written comments on all aspects of the revised draft rules. However, Staff would especially be interested in receiving comments on the following provisions:

R14-2-2602. Applicability

- Staff would like additional feedback regarding the applicability of the rules to the Cooperatives.

R14-2-2623. Energy Storage System General Requirements

- Please provide proposed language regarding energy storage systems and comments on how energy storage should be addressed in the context of these rules. Staff would appreciate feedback on whether the current language included in the revised draft adequately addresses interconnection issues surrounding energy storage systems.

R14-2-2624. Advanced Inverter Requirements

- Staff would appreciate feedback regarding the proposed language.

System Upgrade Costs

- Staff is considering the inclusion of language that addresses system upgrade costs, proposed by EFCA in its June 9, 2017 filing (please refer to filing for context):

> "If the Generating Facility's operating characteristics can be modified such that improvements to the Distribution System are reduced or not required, the utility shall provide the Customer with information regarding the specific nature of the system constraints that a project and its anticipated operations are violating and the opportunity to modify its operations and reduce the facility costs."

Please provide feedback regarding this proposed language.

Unit Cost Guide

- In EFCA's June 9, 2017 filing, it included language requiring a Unit Cost Guide. Staff would appreciate comments addressing the requirement of a Unit Cost Guide.

Please file an original and 13 copies of your comments with the Commission's Docket Control, 1200 W. Washington St., Phoenix, AZ 85007, on or before October 6, 2017. Please reference Docket No. RE-00000A-07-0609 on all comments.

Staff will be conducting a workshop to discuss the comments and revised draft in October 2017. A notice and agenda for the workshop will follow.

If parties are not already included on the service list for this Docket, and wish to be added, they should send notice of their interest including a mailing address and an email address to Docket Control. Staff welcomes and appreciates the input of all interested parties in the development of these rules.

Questions, concerns, and requests for additional information should be addressed to:

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On this 6th day of September, 2017, the foregoing document was filed with Docket Control as a Utilities Division Correspondence, and copies of the foregoing were mailed on behalf of the Utilities Division to the following who have not consented to email service. On this date or as soon as possible thereafter, the Commission's eDocket program will automatically email a link to the foregoing to the following who have consented to email service.

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TITLE 14. PUBLIC SERVICE CORPORATIONS; CORPORATIONS AND ASSOCIATIONS; SECURITIES REGULATION

CHAPTER 2. CORPORATION COMMISSION

FIXED UTILITIES

ARTICLE 26. INTERCONNECTION OF DISTRIBUTED GENERATION FACILITIES

R14-2-26262. ~~Utility Reporting Requirements~~Dispute Resolution

R14-2-2627. Pre-Application Report

R14-2-2628. Utility Reporting Requirements

R14-2-2601. Definitions

In this Article, unless otherwise specified:

1. "AC" means alternating current.
2. ~~"ANSI" means American National Standards Institute.~~
3. "Application" means the standard form for applying to interconnect a Generating Facility with the Distribution System.
4. ~~"Commission" means the Arizona Corporation Commission.~~
5. "Backfeed" means to energize a section of a Utility electric system that is supplied from a source other than its normal source.
6. "Business Days" means Monday through Friday, excluding federal and Arizona state holidays.
7. "Certified Equipment" means a specific generating and protective equipment system or systems that have been certified as meeting the requirements in R14-2-2612~~3~~ relating to testing, operation, safety, and reliability by an entity approved by the Commission.
6. "Clearance" means a statement, with documentation, from the Utility that said line or equipment is disconnected from all known sources of power and tagged, and that for safety purposes all proper precautionary measures have been taken and those workers may proceed to inspect, test, and install ground on the circuit.

8. "CFR" means Code of Federal Regulations.
8. "Commission" means the Arizona Corporation Commission.
9. "Customer" means an electric consumer that generates electricity on the consumer's side of the Utility meter.
10. "DC" means direct current.
11. "Disconnect Switch" means a device that the Customer ~~may be~~is required to install and maintain that is a visible open, manual, gang-operated, load break disconnect device, capable of being locked in a visible open position by a standard Utility padlock that will completely isolate the ~~Customer's~~ Generating Facility from the ~~Utility grid~~Distribution System. If the voltage is over 500 volts, it must be capable of being grounded on the Utility side.
12. "Distributed Generation" means any type of Customer electrical generator, static inverter, or Generating Facility interconnected with the Distribution System that either has the capability of

being operated in electrical parallel with the Distribution System or can feed a Customer load that can also be fed by the Distribution System.

13. "Distribution System" means the infrastructure constructed, maintained, and operated by a Utility to deliver electric service at the distribution level (less than 69 kV) to retail consumers.

14. "Exporting System" means any type of Generating Facility that can continuously Backfeed the Distribution System.

154. "Facilities Study" means a comprehensive analysis of the actual construction needed to take place based on the outcome of the System Impact Study.

165. "Fault Current" means the level of current that can flow if a short circuit is applied to a voltage source.

176. "Feasibility Study" means a preliminary review of the potential impacts on the Distribution System that will result from the proposed Interconnection.

187. "Generating Facility" means all or part of the Customer's electrical generator(s) or inverter(s) together with all protective, safety, and associated equipment necessary to produce electric power at the Customer's facility. A Generating Facility also includes any QF.

198. "Good Utility Practice" means any of the practices, methods, and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods, and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety, and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

2019. "IEEE" means ~~The~~ Institute of Electrical and Electronics Engineers.

210. "Interconnection Agreement" means an agreement, together with appendices, signed between the Utility and the Customer, covering the terms and conditions governing the Interconnection and operation of the Generating Facility with the Utility.

221. "Interconnection" means the physical connection of a Generating Facility to the Distribution System.

232. "Interconnection Manual" means a separate document developed and maintained by each Utility, made available on each Utility's web site, and approved by the Commission, containing

detailed technical, safety, and protection requirements necessary to interconnect a Generating Facility to the Distribution System.

243. "Interconnection Study" means a study that may be undertaken by a Utility (or a Utility-designated third party) in response to its receipt of a completed Application. An Interconnection Study may include, but not be limited to, a Feasibility Study, a System Impact Study, and a Facilities Study.

254. "Island" or "Islanding" means a condition in which a portion of athe Distribution System is energized solely by one or more local electric power systems throughout the associated Point of Interconnection while that portion of the Distribution System is electrically separated from the rest of the Distribution System. An Island can be either intentional (planned) or unintentional (unplanned).

265. "kW" means kilowatt.

276. "MW" means megawatt.

28. "Non-Exporting System" means a system in which there is no continuous export of power from the Generating Facility to the Distribution System.

~~27. "NEMA" means the National Electrical Manufacturers Association.~~

~~28. "NFPA" means the National Fire Protection Association.~~

299. "NRTL" means a Nationally Recognized Testing Laboratory.

3030. "Parallel ~~System~~Operation" means the operation of a Generating Facility that is electrically interconnected to a bus common with the Distribution System, either on a momentary or continuous basis.

3131. "Point of Interconnection" means the physical location where the Utility's service conductors are connected to the Customer's service conductors to allow pParallel Ooperation of the Generating Facility with the Distribution System.

3232. "QF" means Qualifying Facility, any cogeneration or small power production facility that meets the criteria for size, fuel use, efficiency, and ownership as promulgated in 18 CFR, Chapter I, Part 292, Subpart B of the Federal Energy Regulatory Commission's Regulations.

~~33. "Radial Line" means a distribution line that originates from a substation and is normally not connected to another substation or another circuit sharing the common supply of electric power.~~

343. "Relay" means an electric device that is designed to interpret input conditions in a prescribed manner and after specified conditions are met to respond to cause contact operation or similar abrupt change in associated electric control circuits.

345. "Secondary Spot Network System" means an AC power Distribution System in which a Customer is simultaneously served from three-phase, four-wire low-voltage (typically 480V) circuits supplied by two or more network transformers whose low-voltage terminals are connected to the low-voltage circuits through network protectors. The low voltage circuits do not have ties to adjacent or nearby secondary network systems. The Secondary Spot Network System has two or more high-voltage primary feeders. These primary feeders are either dedicated network feeders that serve only other network transformers, or a non-dedicated network feeder that serves radial transformers in addition to the network transformer, depending on network size and design. The system includes automatic protective devices and fuses intended to isolate faulted primary feeders, network transformers, or low-voltage cable sections while maintaining uninterrupted service to the consumers served from the low-voltage circuits.

~~36. "Separate System" means the operation of a Generating Facility that has no possibility of operating in parallel with the Distribution System.~~

357. "System Impact Study" means a full engineering review of all aspects of the Generating Facility's impact on the Distribution System, including power flow, Utility system protective device coordination, generator protection schemes (if not certified), stability, voltage collapse, frequency impacts, and short circuit ~~duty~~study.

368. "UL" means Underwriters Laboratories Inc.

379. "Utility" means an electric distribution company that constructs, operates, and maintains ~~the~~ its Distribution System for the receipt and/or delivery of electricity~~power~~.

R14-2-2602. Applicability

A. These regulations:

1. Apply to any Generating Facility with a power rating of 15~~0~~ MW or less, operating (or applying to operate) in parallel with a Distribution System, subject to Commission jurisdiction;
2. Establish technical and procedural requirements, terms, and conditions to promote the safe and effective P~~p~~arallel O~~o~~peration of a Generating Facility with the Distribution System;
3. Include provisions for interconnecting to a radial or Secondary Spot Network System; and
4. Include three distinct types of Generating Facilities:

a. sSolid-state or static inverters,

b. iInduction machines, and

c. sSynchronous machines.

~~B. The total capacity of an individual Generating Facility may exceed 10 MW; however, no more than 10 MW of a Generating Facility's capacity can be interconnected at a single Point of Interconnection.~~

~~C~~B. The electric rates and schedules, terms and conditions of service, or other contract provisions governing the electric power sold by a Utility to an Arizona retail consumer are subject to the jurisdiction of the Commission~~. The Commission also has jurisdiction~~ and when the Utility purchases excess power from a QF under 18 CFR 292.303 and 18 CFR 292.306 (2004).

~~D. The Federal Energy Regulatory Commission has jurisdiction over an Interconnection with facilities that are subject to the Utility's Open Access Transmission Tariff.~~

~~C. R14-2-2603. Types of Generating Facilities~~

~~Generating Facilities include induction and synchronous electrical generators as well as any type of electrical inverter capable of producing AC power. A Generating Facility may be operated in Parallel with the Distribution System (either on a continuous basis or momentarily), or as a Separate System with non-parallel load transfer between the two independent power systems.~~

~~A. Parallel System. The Generating Facility becomes an integral part of the Distribution System, and it must be considered in the electrical protection and operation of the Distribution System.~~

~~1. A Parallel System includes any type of Generating Facility that can electrically parallel with, or potentially Backfeed the Distribution System. Any Generating Facility using a closed transition type transfer switch or a multi-breaker transfer scheme, or an electrical inverter that can be configured or programmed to operate in an interactive mode, may be required to have a Relay to prevent potential Backfeed to the Distribution System, and is classified as a Parallel System. A continuous uninterruptible power supply, a unit without grid tie capability, and an islanding inverter technology are not considered a Parallel System provided it is not a potential Backfeed source to the Distribution System.~~

~~2.~~ The Utility has specific Interconnection, contractual, and inspection requirements that must be complied with and information that needs to be submitted for all interconnected Generating Facilities. These may include protective relaying, metering, special rate schedules, applicable safety devices, and information requirements as specified in the Interconnection Manual.

3. There are two sub-types of a Parallel System:

a. Momentary Parallel System. A Momentary Parallel System transfers electrical load between the Distribution System and the Generating Facility by means of a "make-before break" transfer scheme. A Momentary Parallel System synchronizes the Generating Facility with the Distribution System for a period not to exceed 10 seconds for the purpose of uninterrupted load transfer. A Momentary Parallel System is useful for a Customer who wishes to have greater reliability of electric service without experiencing the momentary outage of service that occurs under a "break-before-make" transfer switch scheme. Additionally, this approach allows the Customer to more effectively test the switchgear and generator with load during weekly and monthly testing.

b. Islandable System. An Islandable System is a Generating Facility interconnected to a bus common with the Distribution System, where the Generating Facility is designed to serve part of the Distribution System that has become or is purposefully separated from the rest of the Distribution System.

B. Separate System. A Separate System is one in which there is no possibility of electrically connecting or operating the Generating Facility in parallel with the Distribution System. The Customer's equipment must transfer load between the two power systems in an open transition or non-parallel mode. If the Customer claims a Separate System, the Utility may require verification that the transfer scheme meets the non-parallel requirements.

1. A Separate System used to supply part or all of the Customer's load during a Utility power outage must be connected to the Customer's wiring through a double throw, "break-before-make" transfer switch specifically designed and installed for that purpose. The transfer switch must be of a fail-safe design, which, under no circumstances, will allow the Generating Facility to electrically interconnect or parallel with the Distribution System. The transfer switch must always disconnect the Customer's load from the Distribution System prior to connecting it to the Generating Facility. Conversely, the transfer switch must also disconnect the load from the Generating Facility prior to re-connecting it with the Distribution system. These requirements apply to both actual emergency operations as well as any testing of the Generating Facility. All transfer switches and transfer schemes must be listed by an NRTL for the purpose as used, and also inspected and approved by the jurisdictional electrical inspection agency.

2. A portable generator is one sub-type of a Separate System. Portable generators are not designed to be connected to a building's permanent wiring system, and are not to be connected to any such wiring

~~unless a permanent and approved transfer switch is used. Failure to use a transfer switch can result in Backfeed into the Distribution System. The transfer scheme must meet the non-parallel requirements.~~

R14-2-2603. Types of Generating Facilities

A. Generating Facilities include induction and synchronous electrical generators as well as any type of electrical inverter capable of producing AC power. A Generating Facility may be operated as an Exporting System that exports power to the Distribution System (on a continuous basis), or as a Non-Exporting System that does not export power on a continuous basis.

1. Exporting System. A continuous uninterruptible power supply, a unit without grid tie capability, and an islanding inverter technology are not considered as an Exporting System provided it does not continuously Backfeed the Distribution System.
2. Non-Exporting System. If the Customer claims a Non-Exporting System, an independent third party certification may be required ensuring that the system meets the non-export requirements.
   a. A Non-Exporting System may be used to supply part or all of the Customers load continuously or during a Utility power outage. The system may be sized such that the export of power is not possible or include certified inverter control functions to prevent the continuous export of power. All control functions must be listed by an NRTL for the purpose as used, and also inspected and approved by the jurisdictional electrical inspection agency.
   b. There are three sub-types of a Non-Exporting System:
      i. Inadvertent export system. An inadvertent export system utilizes control functions that limit the export of electrical power from the Generating Facility to the Distribution System. This option requires that all of the following conditions be met: (a) the Generating Facility must utilize only UL-l 741 certified or UL-l 74 l SA certified inverters: (b) the magnitude of export shall be less than the Generating Facilities nameplate rating (kVA gross) and the duration of export of power from the Customers Generating Facility shall be less than two (2) seconds for any single event; (c) the Generating Facility must monitor that total energy export is maintained to be no more than the Generating Facilities nameplate rating (kVA gross) multiplied by fifteen (l5) minutes per month (e.g. for a 100 kVA gross nameplate Generating facility, the maximum energy allowed to be exported for a 30-dav month is 25 kWh) (d) must result in the Generating Facility disconnecting from the Distribution System, ceasing to energize the Distribution System or halting energy production within two seconds alter the period of uninterrupted export exceeds two (2) seconds, (e) Failure

of the control or inverter system for more than thirty (30) seconds, resulting from loss of control signal, loss of control power or a single component failure or related control sensing of the control circuitry must result in the Generating Facility entering a safe operating mode where inadvertent export events will not occur.

ii. Backup system. A backup system transfers electrical load between the Distribution System and the Generating Facility by means of a transfer scheme. A Backup System synchronizes the Generation Facility with the Distribution System for a period not to exceed 2 seconds for the purpose of uninterrupted load transfer. A Backup System is useful for a Customer who wishes to have greater reliability of electric service. Additionally. This approach allows the Customer to more effectively test the switchgear and generator with load during weekly and monthly testing.

iii. Portable generator. Portable generator are not designed to be connected to a building's permanent wiring system, and are not to be connected to any such wiring unless a permanent and approved transfer switch is used. Failure to use a transfer switch can result in unintentional Backfeed into the Distribution System. A portable generator's transfer scheme must meet open transition requirements.

R14-2-2604. Customer Rights and Responsibilities

A. A Customer has the right to submit an Application to interconnect a Generating Facility with the Distribution System. The Customer has the right to expect prompt~~, reasonable,~~ and professional responses from the Utility ~~at every step of~~during the Interconnection process. The Customer has the right to expect ~~reasonable~~ good faith cost estimates, outlines of the proposed work, supporting data, and justification for proposed work before the Utility undertakes any studies or system upgrades to accommodate the Generating Facility.

B. The Customer has the responsibility of disclosing to the Utility items specified herein on the Generating Facility and its operation. The Customer also has the responsibility of ensuring that:

1. The Generating Facility meets all minimum interconnection, safety and protection requirements outlined in these provisions and the Utility's Interconnection Manual;
2. The Generating Facility meets all applicable construction codes, safety codes, electric codes, laws, and requirements of government agencies having jurisdiction;
3. All the necessary protection equipment is installed and operated to protect the Generating Facility, Utility personnel, the public, and the Distribution System;

4. The Generating Facility design, installation, maintenance, and operation ~~reasonably~~ minimizes the likelihood of causing a malfunction or other disturbance, damaging, or otherwise impairing the Distribution System;
5. The Generating Facility does not adversely affect the quality of service to other consumers (but no more or less than the present standard of care observed by regular Utility/consumer connections);
6. The Generating Facility ~~minimally hampers~~does not hamper efforts to restore a feeder to service (specifically when a clearance is required);
7. The Generating Facility is maintained in accordance with applicable manufacturers' maintenance schedule; and
8. The Utility is notified of any emergency or hazardous condition or occurrence with the Generating Facility, which could affect safe operation of the Distribution System. ~~(This notification can be through electronic communication.)~~

C. The Customer is responsible for all Interconnection ~~facilities~~ equipment required to be installed to interconnect the Generating Facility to the Distribution Ssystem. These may include connection, transformation, switching, protective relaying, metering and safety equipment, and any other requirements as outlined in this Article or other special items specified by the Utility. All such i~~I~~nterconnection facilities are to be installed by the Customer at its sole expense.

D. The Customer, or Customer's agent, shall own and be responsible for designing, installing, operating and maintaining ~~control and protective devices, in addition to minimum protective devices and relays specified in the Utility's~~all Interconnection facilities ~~Manual, to protect its facilities from abnormal operating conditions such as, but not limited to, electric overloading, abnormal voltages, and Fault Currents. Such protective devices must promptly disconnect~~required to be installed to interconnect the Generating Facility ~~from~~ to the Distribution System. ~~in the event of a power outage on the Distribution System. The Customer shall also own and be responsible for designing, installing, operating and maintaining Interconnection~~Such facilities shall be located on the Customer's premises and shall include all equipment as may be required to deliver power from the Generating Facility to the Distribution System at the Point of Interconnection. These include connection, transformation, switching, protective relaying, metering, Disconnect Switch, communication, and safety equipment, and any other requirements as outlined in this Article or other special items specified by the Utility. All such Interconnection facilities are to be installed at the sole expense of the Customer.

E. In the event that additional facilities are required to be installed on the Distribution System to accommodate the Customer's generation, the Utility ~~will~~ shall install, replace, and maintain such facilities at the Customer's expense. A Facilities Study may be required to further identify the costs and scope associated with any proposed work and required facilities. The Utility shall provide notice to the Customer of intent to install required facilities ~~such facilities early in the process~~following completion of studies. ~~-~~The Customer is not responsible for Utility upgrades ~~for other consumers~~ unrelated to the Generating Facility installation.

F. Customers interconnecting a Generating Facility with the Utility system shall:

1. Sign an Interconnection Agreement, and all other applicable purchase, supply, and standby agreements; and
2. Comply with all applicable tariffs, rate schedules and Utility service requirements.

R14-2-2605. Utility Rights and Responsibilities

A. The Utility is obligated to interconnect Generating Facilities to the Distribution System, subject to the requirements set forth in this Article and in each Utility's Interconnection Manual.

B. The Utility has the right to expect prompt, reasonable~~,~~ and professional responses from the Customer during the Interconnection process.

C. Because the Utility is required to safeguard its system, other consumers, and the general public, the Utility has the right and responsibility to ~~ensure~~ require that an interconnected Generating Facility:

1. ~~Will N~~not present any ~~unreasonable~~ hazards to Utility personnel, other consumers, or the public;
2. Minimize~~s~~ the possibility of damage to the Utility and other consumers' equipment;
3. Not adversely affect the quality of service to other consumers; and
4~~3~~. ~~Minimally hampers~~Not hamper efforts to restore a feeder to service (specifically when a ~~e~~Clearance is required).

D. The Utility ~~will~~ shall notify the Customer if there is ~~any evidence~~reason to believe that the Customer's Generating Facility operation causes disruption or deterioration of service to other consumers served from the Distribution System or if such operation causes damage to the Distribution S~~s~~ystem.

E. The Utility has the responsibility to make its Interconnection Manual, standard Application forms and Interconnection Agreements readily available ~~to Customers~~ in print and online formats.

F. Following the receipt of the Customer's completed Application, the Utility may perform an engineering review to determine if an Interconnection Study is required. Before the Utility undertakes any studies or system upgrades that will be charged to the Customer, the Utility has the responsibility

to provide a detailed cost estimate, outline of the proposed work, supporting data, and justification for the proposed work. The Interconnection Study determines whether any additional facilities will be required to be installed to the Distribution System. The Interconnection Study will also provide an estimated cost. The results of the Interconnection Study will be provided to the Customer.

G. The burden will be on a ~~—~~Utility ~~must show~~to demonstrate good cause why a Generating Facility that satisfies the requirements of the Utility's Interconnection Manual should not be approved for interconnected operation.

H. If facility upgrades are needed to accommodate the Generating Facility, a Utility shall reduce the charge of the upgrade to the Customer by the amount of benefits, if any, to the grid that are readily quantifiable by the Utility. In addition, a Utility cannot reject an Application on the basis of Distribution System conditions that are already deficient, or charge a Customer for facility upgrades that are overdue or soon to be required to ensure compliance with Good Utility Practice, except that applications can be rejected in instances where reliability or safety would be further compromised by a Distributed Generation installation. The burden will be on the Utility to demonstrate that reliability and safety will be jeopardized if the application is granted. A Utility shall not charge a Generating Facility Customer differently than any other consumer for facility upgrades in accordance with generally applicable Commission-approved tariffs if an application is rejected.

R14-2-2606. Easements and ~~/~~Rights~~--~~of~~--~~Way

Utility Right to Access Utility-Owned Facilities and Equipment. Where an easement or right~~--~~of~~--~~way does not exist, but is required by the Utility to accommodate the Interconnection, the Customer must provide suitable easements or rights~~--~~of~~--~~way, in the Utility's name, on the premises owned, leased, or otherwise controlled by the Customer. If the required easement or right of way is on another's property, the Customer must obtain and provide to the Utility a suitable easement or right~~--~~of~~--~~way, in the Utility's name, at the Customer's sole cost and in sufficient time to comply with the Interconnection Agreement requirements. The Utility shall use reasonable efforts to utilize existing easements to accommodate the Interconnection. The Utility ~~to the extent possible and~~ shall use reasonable efforts to assist the Customer in securing necessary easements at the Customer's expense. ~~that do not exist but are necessary to accommodate the Interconnection.~~

R14-2-2607. Insurance

A. The Customer is not required to provide general liability insurance coverage as a condition for Interconnection. Due to the risk of incurring damages, it is recommended that every Interconnection Customer protect itself with insurance or other suitable financial instrument sufficient to meet its construction, operating, and liability responsibilities. At no time shall the Utility require that the Customer negotiate any policy or renewal of any policy covering any liability through a particular insurance provider, agent, solicitor, or broker.

B. The inability of the Utility to require the Customer to provide general liability insurance coverage for operation of the Generating Facility is not a waiver of any rights the Utility may have to pursue remedies at law against the Customer to recover damages.

R14-2-2608. Non-Circumvention

A Utility and its affiliates shall not use knowledge of proposed Distributed Generation projects submitted to it for Interconnection or study to initiate competing proposals to the Customer that offer either discounted rates in return for not installing the Distributed Generation, or offer competing Distributed Generation projects. Customers are not precluded from sharing information in their possession regarding a potential Distributed Generation project with a Utility or its affiliates, or from using information regarding a potential Distributed Generation project to negotiate a discounted rate or other mutually beneficial arrangement with a Utility or its affiliates. The Utility shall be permitted to inform the Customer of existing or pending (awaiting approval by the Commission) rate schedules that may economically benefit, economically disadvantage, or otherwise affect the Customer's project.

R14-2-2609. Designation of Contact Persons

A. Each Utility shall: designate a person or persons ~~to~~ who will serve as the Utility's contact for all matters related to Distributed Generation Interconnection.; identify to the Commission its Distributed Generation contact person or persons.; and provide convenient access through its web site to the names, telephone numbers, mailing addresses and electronic mail addresses for its Distributed Generation contact person or persons.

B. Each Customer applying for Interconnection shall designate a contact person or persons, and provide to the Utility the contact's name, telephone number, mailing address, and electronic mail addresses.

R14-2-2610. Non-discrimination

All Applications for Interconnection and P~~p~~arallel O~~o~~peration of Distributed Generation shall be processed by the Utility in a non-discriminatory manner.

R14-2-2611. Application Submission Requirements

The Utility may require additional documentation to be submitted with the Application. Each Utility's Application form shall specify what additional documentation is required. Additional documentation may include an electrical one-line diagram, an electrical three-line diagram, AC and DC control schematics, plant location diagram, and site plan. Upon request, the Utility shall provide the Customer with sample diagrams that indicate the preferred level of detail and type of information required for a typical inverter-based system.

R14-2-2612. Minor Modifications

It is recognized that certain Applications may require minor modifications to the Generating Facility or the Application while they are being reviewed by the Utility. Such minor modifications to a pending Application shall not require that it be considered incomplete and treated as a new or separate Application.

R14-2-2613 Certification

A. In order to qualify as Certified Equipment for any Interconnection procedures, relevant equipment must comply with the applicable ~~following codes~~codes, guides, and standards as referenced in the Utility Interconnection Manual.~~:~~

~~1. IEEE 1547 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity);~~

~~2. IEEE 1547.1 Standard for Conformance Testing Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems;~~

~~3. UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems;~~

~~4. IEEE Std 929-2000 IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems;~~

~~5. NFPA 70 (2002), National Electrical Code;~~

~~6. IEEE Std C37.90.1-1989 (R1994), IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems;~~

~~7. IEEE Std C37.90.2 (1995), IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers;~~

~~8. IEEE Std C37.108-1989 (R2002), IEEE Guide for the Protection of Network Transformers;~~

~~9. IEEE Std C57.12.44-2000, IEEE Standard Requirements for Secondary Network Protectors;~~

~~10. IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low Voltage (1000V and Less) AC Power Circuits;~~

~~11. IEEE Std C62.45-1992 (R2002), IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits;~~

~~12. ANSI C84.1-1995 Electric Power Systems and Equipment—Voltage Ratings (60 Hertz);~~

~~13. IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms~~

~~14. NEMA MG 1-1998, Motors and Small Resources, Revision 3;~~

~~15. IEEE Std 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems; and~~

~~16. NEMA MG 1-2003 (Rev 2004), Motors and Generators, Rev. 1.~~

B. In order to qualify as Certified Equipment, Generating Facility equipment proposed for use separately or packaged with other equipment in an Interconnection system must comply with the following requirements:

1. It has been tested in accordance with industry standards for continuous utility interactive operation in compliance with ~~the~~ appropriate codes and standards referenced ~~in R14-2-2613(A)~~ by any NRTL recognized by the U. S. Occupational Safety and Health Administration to test and certify Interconnection equipment pursuant to the relevant codes and standards ~~listed above~~;
2. It has been labeled and is publicly listed by such NRTL at the time of the Interconnection ~~A~~application; and
3. Such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with Customer approval, the test data itself. The NRTL may make such information available on its web-site and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.

C. The Customer must verify that the intended use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.

D. ~~Certified Equipment will not require further type-test review, testing, or additional equipment to meet the requirements of this Article and the Utility's Interconnection Manual.~~ Nothing herein shall preclude ~~the need for~~ project Interconnection review and approval by the Utility or on-site commissioning testing prior to the Interconnection ~~nor~~ or follow-up production testing by the NRTL.

E. If the Certified Equipment includes only interface components (switchgear, inverters, or other interface devices), then a Customer must show, upon request from the Utility, that the Generating Facility is compatible with the interface components and is consistent with the testing and listing specified for this type of Interconnection equipment.

F. Certified Equipment does not include equipment provided by the Utility.

R14-2-2614. No Additional Requirements

If a Generating Facility complies with all applicable requirements, a Utility may not require the Customer to install additional controls, or perform or pay for additional tests, in order to obtain approval to interconnect except as mutually agreed to by the parties or required by the Commission. Additional equipment may be installed by the Utility at its own expense.

R14-2-2615 Disconnection from or Reconnection with the Distribution System

A. A Utility may disconnect a Generating Facility from the Distribution System under the following conditions:

1. Expiration or termination of Interconnection Agreement. The Interconnection Agreement specifies the effective term and termination rights of the Utility and the Customer. Upon expiration or termination of the Interconnection Agreement with a Customer, in accordance with the terms of the agreement, the Utility may disconnect a Generating Facility.
2. Non-compliance with technical Interconnection requirements. A Utility may disconnect a Generating Facility if the facility is not in compliance with the technical requirements found within the Utility's Interconnection Manual. Within ~~two~~ five Bbusiness Ddays from the time the Customer notifies the Utility that the Generating ~~f~~Facility has been restored to compliance with the technical requirements, the Utility shall have an inspector verify such compliance. Upon such verification, the ~~Customer~~ Utility in coordination with the ~~Utility~~ Customer, shall~~may~~ reconnect the Generating F~~f~~acility.
3. System emergency. A Utility may temporarily disconnect a Generating Facility without prior written notice in cases where continued Interconnection of the Generating Facility will endanger system operations, persons or property. During the forced outage of a Distribution System, the Utility may temporarily disconnect a Generating Facility to make immediate repairs on the Distribution System. When possible, the Utility shall provide the Customer with reasonable notice. The Utility shall reconnect the Generating Facility as quickly as practical, and after the Utility's determination that the Generating Facility's operations have been mitigated.
4. Routine maintenance, repairs, and modifications. A Utility may disconnect a Generating Facility from the Distribution System with reasonable prior notice of a service interruption for routine maintenance, repairs, and system modifications. The Utility shall allow reconnection of the Generating Facility as quickly as practical following any such service interruption.

5. Absence of executed Interconnection Agreement. In order to interconnect a Generating Facility to a Distribution System, the Customer and the Utility must execute an Interconnection Agreement. The Utility may refuse to connect or may disconnect the Generating Facility if an executed Interconnection Agreement is not in effect.

B. The Pparties shall cooperate with each other to restore the Generating Facility and the Distribution System to their normal operating state as soon as practical.

C. Temporary disconnection by Customer. The Customer may temporarily disconnect its Generating Facility from the Distribution System at any time. Such temporary disconnection shall not be a termination of the Interconnection Agreement unless specified as such.

D. Agreement survival rights. The Interconnection Agreement between the Utility and the Customer shall continue in effect after disconnection or termination of electric service to the extent necessary to allow or require either party to fulfill rights or obligations that arose under the agreement notwithstanding the items in Section E(4) below.

E. Duration and Termination of the Interconnection Agreement. The Interconnection Agreement shall become effective on the effective date specified in the agreement and shall remain in effect thereafter unless and until:

1. It is terminated by mutual agreement of the parties;
2. It is replaced by another Interconnection Agreement with mutual consent of the parties;
3. It is terminated by either party pursuant to a breach or default of the agreement; or
4. The Customer terminates its Utility electric service and/or vacates or abandons the property on which the Generating Facility is located, or terminates or abandons the Generating Facility, without mutual agreement of the parties.

F. Upon termination of the Interconnection Agreement, the Customer shall be responsible for ensuring that the electrical conductors connecting the Generating Facility to the Distribution System are immediately lifted and permanently removed, so as to preclude any possibility of interconnected operation in the future. The Utility ~~may i~~reserves the right to inspect the Generating Facility to verify that it is permanently disconnected.

R14-2-2616. Summary of Interconnection Levels and Tracks

A. Level 1 Super Fast Track. Certified inverter-based ~~facilities~~ Generating Facilities that have a power rating of ~~2~~10 kW or less, are interconnected to a non-network distribution circuit ~~on a Radial Line,~~

and meetand meets- screens (AE), (E), and (F) and (F) in R14-2-2617, below. Refer to R14-2-2618 for additional details.

B. Level 2 Fast Track. Generating Facilities that have a power rating greater than 20 kW but less than of 2 1 MW or less, are interconnected to a non-network distribution circuiton a Radial Line,, and meet screens (A) through (H) in R14-2-2617. Refer to R14-2-2619 for additional details.

C. Level 3 Study Track. Generating Facilities that have a power rating of 10 MW or greater or less that do not meet the screening requirements for Level 1 Super Fast Track, Level 2 Fast Track, or Supplemental Reviewcriteria or screens for other Levels. Interconnection studies may be required. Refer to R14-2-2620 for additional details.

D. Distribution Networks. On an interim basis, certified inverter-based Generating Facilities that have a power rating of 10 kW or less will be allowed to be interconnected on a secondary spot network system and otherwise as approved by the Utility. Generating Facilities will only be interconnected on a trial, pilot basis, at the discretion of the Utility, under the Interconnection process set forth in the Utility's Interconnection Manual. Refer to R14-2-2621 for additional details.

R14-2-2617. Screens

A. For Interconnection of a proposed Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Generating Facility, on the circuit will not exceed 15% of the total circuit annual peak load as most recently measured at the substation or on thea line section. In the case of generators certified to UL 1741 and IEEE 1547, a line section is that portion of a Distribution System connected to a Generating Facility bounded by automatic sectionalizing devices, or the end of the distribution line. For non-certified generators, a line section is that portion of a Distribution System connected to a Generating Facility bounded by automatic sectionalizing devices, a fused lateral, or the end of the distribution line. The aggregated generation, including the proposed Generating Facility, must also be less than 50% of the minimum daytime feeder or line section load, where these data are available, unless the minimum load is zero.

B. The proposed Generating Facilityy, and new motors associated with the proposed generator, in aggregation with other generation on the distribution circuit, will not contribute more than 10% to the distribution circuit's maximum fFault cCurrent at any point on the Distribution System, including normal contingency conditions that may occur due to reconfiguration of the feeder or the distribution substation.

C. The proposed Generating Facility, in aggregate with other generation on the distribution circuit, will not cause any distribution protective devices and equipment (including but not limited to substation breakers, fuse cutouts, and line reclosers), or consumer equipment on the system, to exceed 90% of the short circuit interrupting capability; nor is the Interconnection proposed for a circuit that already exceeds 90% of the short circuit interrupting capability.

D. The proposed Generating Facility is interconnected to the Utility as shown in the table below:

Primary distribution line configuration	Interconnection to primary distribution line
Three-phase, three wire	If a three-phase or single-phase ~~generator~~Generating Facility, Interconnection must be phase-to-phase
Three-phase, four wire	If a three-phase (effectively grounded) or single-phase ~~generator~~Generating Facility, Interconnection must be line-to-neutral

E. If the proposed Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Generating Facility, cannot exceed ~~10~~ 20 kW~~, and the proposed generator must be listed to UL 1741~~.

F. If the proposed Generating Facility is single-phase and is to be interconnected on a transformer center tap neutral of a 240 volt service, its addition will not create an imbalance between the two sides of the 240 volt service of more than 20% of nameplate rating of the service transformer.

G. The proposed Generating Facility, in aggregate with other generation interconnected to the distribution low voltage side of the substation transformer feeding the distribution circuit where the ~~generator~~ Generating Facility proposes to interconnect, will not exceed 10 MW in an area where there are known or posted transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four transmission voltage level ~~(69 kV or higher)~~ busses from the Point of Interconnection).

H. The proposed Generating Facility's Point of Interconnection will not be on a transmission ~~(69 kV or higher)~~ line.

I. The proposed Generating Facility cannot exceed the capacity of the Customer's existing electrical service unless there is a simultaneous request for an upgrade to the Customer's electrical service or if the Generating Facility is configured to never inject power onto the feeder that exceeds the capacity of the electrical service.

R14-2-2618. Level 1 Super Fast Track

A. The Level 1 Super Fast Track Application process is available to Customers interconnecting an inverter-based Generating Facility ~~either a single certified static inverter, with a continuous output power nameplate rating~~ of 2~~1~~0 kW or less ~~, or multiple certified static inverters with a combined continuous power nameplate rating of 10 kW or less, screen (E),~~ to the Distribution System. In order to qualify for Level 1 Super Fast Track, the Generating Facility must meet screens (A), (E), and (F) in R14-2-2617. The inverters must be UL 1741 listed, and certified to meet the shutdown protective functions (under/over voltage, under/over frequency and anti-islanding) specified in IEEE ~~929, screen (F).~~1547 or equivalent standard. The Generating Facility must also meet all applicable codes and standards, as well as comply with the Utility Interconnection and contractual requirements.

B. Nothing in this process precludes the Customer and Utility from mutually agreeing to different time-frames specified in A.R.S. § 44-1764 or other procedures for the approval of interconnected operation of a Generating Facility, so long as the project progresses as agreed to by the parties. ~~Nothing in this process precludes the Customer from starting construction prior to contacting the Utility; however, the Customer accepts the risk of potentially needing to modify or substantially change the installation.~~

C. The Level 1 Super Fast Track steps are as follows:

1. Customer Submits Application. The Customer completes the Application and submits it to the Utility along with all required supplemental information and documents, which shall be noted on the Application. The Customer ~~may submit~~submits a pre-executed Interconnection Agreement ~~together~~ along with the Application~~;~~, if ~~permitted~~ required by the Utility. No initial application fee or processing fee will be charged.
2. Application is Received and is Complete or Incomplete. The Utility notifies the Customer within seven calendar days of receipt of the Application as to whether it is complete or incomplete.
   a. When the Utility notifies the Customer that ~~If the~~an Application is incomplete, the Utility ~~will~~ shall specify what additional information or ~~material~~ documentation is necessary to complete the Application.
   b. The Customer has 30 calendar days after receipt of such notification to withdraw the Application, or submit the required information or ~~materials (or request an extension~~documentation~~),~~ ~~or~~ the Application may be considered withdrawn.

3. Utility Reviews Application. Within ~~12~~ 20 calendar days following the receipt of a complete Application, the Utility shall review the ~~proposed~~ Interconnection Application and notify the Customer of one of the following determinations:

   a. The ~~proposed~~ Generating Facility design appears to meet all Interconnection requirements and the Application is approved as submitted. ~~If not pre-executed, the Utility shall prepare an Interconnection Agreement and forward it to the Customer for review and signature in accordance with Step (4) below; or~~

   b. The ~~proposed~~ Generating Facility design has failed to meet one or more of the Utility's Interconnection requirements, and the Application ~~is denied~~may not be accepted as submitted. The Utility shall provide an explanation of the reasons for the denial (in writing, unless otherwise requested by the Customer), and specify what additional information or modifications to the Generating Facility or Distribution System are required in order to obtain approval of the proposed design.

   c. ~~i.~~ If the Application is ~~denied~~not accepted as submitted, the Customer shall notify the Utility within 30~~21~~ calendar days whether or not it wishes to proceed with the ~~project~~Interconnection.

      i. ~~-~~If the Customer does not wish to proceed with the project Interconnection, or the Utility is not notified within the specified time-frame, the Application may be considered withdrawn.

      ii. ~~-~~If the Customer wishes to proceed with the ~~project~~Interconnection, then the Utility will perform a Supplemental Review in accordance with R14-2-2621 within 30 calendar days.

      iii. If the Generating Facility meets the requirements outlined in the Supplemental Review section, then the Application is approved.

      ~~a new Application shall be submitted to the Utility for review and processing (Step (1) above is re-initiated), along with any additional information and modifications to the Generating Facility.~~

      iiv. If the Generating Facility fails to meet one or more of the requirements outlined in the Supplemental Review section then~~Alternatively, the C~~ the Customer can choose to withdraw the Application or may request processing under Level 3 Study Track. ~~may request processing under Level 2 Fast Track or Level 3 Study Track and shall provide any additional information requested by the Utility and necessary to process the request under Level 2 Fast Track or Level 3 Study Track.~~

4. Interconnection Agreement. If the Generating Facility meets all of the applicable interconnection requirements and the Application is approved, then:

   a. Within seven calendar days after the notice of Application approval~~, or following receipt of any "as built" or final diagrams from the Customer~~, the Utility sends to the Customer the appropriate Interconnection Agreement for review and signature. (This step may be omitted if the Utility has received a pre-executed Interconnection Agreement).

   ~~b~~

   ~~. The Customer reviews, signs, and returns the Interconnection Agreement to the Utility.~~

   ~~c. The Customer then completes installation of the Generating Facility within 180~~ b. The Customer will submit to the Utility a copy of the final electrical clearance for the Generating facility issued by the authority having jurisdiction, if required; and

   c. The Customer will submit all necessary supplemental documents as specified by the Utility. ~~calendar days after execution of the Interconnection Agreement, unless an extension is mutually agreed to by the parties, which extension shall not be unreasonably withheld. The Utility has the right to terminate any Interconnection Agreement, and the Application may be considered withdrawn in the event that this time-frame is exceeded without extension.~~

5. Inspection and Testing. The Utility shall perform the site inspection and verify that the Generating Facility is in compliance with all applicable Interconnection and code requirements. The Utility shall perfrom the site inspection within 14 calendar days of the request for a site inspection by the Customer. At a minimum, the Utility shall verify the following:~~Inspection and Testing. The Customer will give the Utility at least seven calendar days notice to schedule the Utility site inspection and inverter shutdown testing. The Utility may schedule metering replacement, if necessary, and labeling of Utility equipment to occur at the same time. There will be no charge for one initial site inspection by the Utility.~~

   a. ~~The Utility shall perform the site inspection and verify that the Generating Facility, as best as can be determined, is in compliance with all applicable Interconnection and code requirements. At a minimum, the Utility shall verify the following:~~

   ~~i. An electrical permit and/or clearance has been issued by the authority having jurisdiction, if required;~~

   ~~ii.~~ All Generating Facility equipment is properly labeled;

biii. The Generating Facility system layout is in accordance with the plant location and site plans submitted to the Utility;

civ. Inverter nameplate ratings are consistent with the information submitted to the Utility;

dv. The Utility has unrestricted 24-hour access to the Utility-owned production meter and Disconnect Switch, ~~(if required),~~ and the ~~switch~~ Disconnect Switch meets all applicable requirements; and

evi. The inverter shuts down as required upon simulated loss of Utility voltage~~; and~~.

fvii. The Generating Facility is wired, as best as can be determined, in accordance with the electrical diagrams submitted to the Utility.

~~6b~~. The Utility will install, at the Utility's expense, appropriate metering equipment if required.

~~normally before or at the time of the site inspection:~~

~~i. Install appropriate metering if required;~~

~~ii. Label all Utility equipment; and~~

~~iii. Ensure that the Generating Facility is properly incorporated onto Utility operating maps and identified as a Backfeed source.~~

~~c. The Utility does not have the right to fail a site inspection in the event that any of the above three requirements (metering, Utility equipment labeling, and the identification of the Generating Facility on the operating maps) are not in place at the time of the site inspection. The Utility does have the right to fail any Generating Facility that does not meet the applicable Interconnection requirements, is not installed in accordance with the documentation submitted to the Utility, or as a result of any safety or protection violation.~~

~~6~~7. Notification. Within 14 calendar days of the ~~Immediately following~~ completion of the site inspection and ~~upon~~the receipt of all final applicable signed Interconnection documents, the Utility shall determine whether or not the Generating Facility meets all applicable requirements, and notify the Customer that:

a. The Generating Facility is approved for ~~P~~parallel ~~O~~operation with the Distribution System per the agreed terms and conditions~~. Within one business day following such oral notification, the Utility shall provide the Customer with such notice in writing~~; or

b. The Generating Facility has failed ~~to~~ the inspection and does not meet one or more of the applicable requirements~~ or a safety or protection violation has been identified~~, and the Generating Facility is not approved for ~~P~~parallel ~~O~~operation. The Utility must provide the

reasons (in writing, unless otherwise requested by the Customer) for not approving Pparallel Ooperation. Furthermore, the Utility has the right to take any reasonable steps (including locking open the Disconnect Switch) to prevent the Generating Facility from Pparallel Ooperation. Operation of a Generating Facility in parallel without Utility approval may result in immediate termination of electric service to the Customer.

87. Corrections. In the event that the Generating Facility does not pass the initial Utility site inspection, the Customer must correct any outstanding issues and notify the Utility within 30 calendar days of the initial site inspection that all corrections have been made. If the Utility is not notified within that timeframe, the Application may be deemed withdrawn unless alternative arrangements have been made by the Customer with the Utility. The Utility must re-inspect the Generating Facility within 14 calendar days of the Customer notice of correction. ~~In the event that the Generating Facility does not pass the initial Utility site inspection:~~

~~a. The Customer must correct any outstanding issues and schedule a re-inspection. The Utility shall re-inspect upon seven calendar days notice from the Customer to verify that the deficiencies have been remedied.~~ The Utility may charge a fee for each re-inspection, if a tariff containing such a fee is approved by the Commission. ~~Within one business day following any site re-inspection, where the Utility approves parallel operation of the Generating Facility, the Utility shall provide written notification to the Customer that the Generation Facility is approved for parallel operation.~~

~~b. If updated diagrams are required to reflect "as-built" conditions, the Customer must submit these to the Utility for review and approval within 12 calendar days following the site inspection. The Utility shall process and mail an amendment to the Interconnection Agreement within seven calendar days after receipt and acceptance of the revised diagrams for Customer review and signature.~~

9. Interconnection of Generation Facility. The installation must be interconnected within 180 calendar days of Application approval unless otherwise mutually agreed to by the Utility and the Customer.

R14-2-2619. Level 2 Fast Track

A. Level 2 Fast Track Application process is available to Customers interconnecting a ~~-~~Generating Facility that is less than 1 MW ~~with a continuous output power nameplate rating of 2 MW or less~~ to the Distribution System, excluding inverter-based Generating Facilities less than 20 kW which are processed in accordance with R14-2-2618. In order to qualify for Level 2 Fast Track, the Generating

Facility must meet screens (A) through (I) in R14-2-2617. If the Generating Facility is inverter-based, the inverter must also meet currently applicable codes and standards, including UL 1741 listed, and must be certified to meet the shutdown protective functions (under/over voltage, under/over frequency, and anti-Islanding) specified in IEEE 1547 or an equivalent standard. The Generating Facility must also meet all applicable codes and standards, as well as comply with the Utility Interconnection and contractual requirements.

B. Nothing in this process precludes the Customer and Utility from mutually agreeing to different time-frames specified in A.R.S. § 44-1764 or other procedures for the approval of interconnected operation of a Generating Facility, so long as the project progresses as agreed to by the parties. ~~Also, nothing in this process precludes the Customer from starting construction prior to contacting the Utility; however, in such case the Customer accepts the risk of potentially needing to modify or substantially change the installation.~~

C. The Level 2 Fast Track steps are as follows:

~~1. Prior to Submitting Application. The Customer may contact the Utility at the conceptual stages of the design to discuss the proposed design, installation, and operation. Upon the Customer's request, the Utility shall meet with the Customer prior to submission of an Application.~~

~~2~~1. Customer Submits Application. The Customer shall complete the Application and submit it to the Utility along with all required supplemental information which shall be noted on the Application form. The Customer shall also submit a signed Interconnection Agreement, operating Agreement (if required), and a construction agreement. A Utility may not charge an application fee unless a tariff containing such a fee is approved by the Commission.

~~3~~2. Application is Received and is Complete or Incomplete. The Utility ~~shall notify~~notifies the Customer within seven calendar days of receipt of the Application as to whether it is complete or incomplete.

a. When the Utility notifies the Customer that ~~If the~~an Application is incomplete, the Utility ~~shall~~ will specify what additional information and/or ~~material~~ documentation is necessary to complete the Application.

b. The Customer has 30 calendar days after receipt of such notification to withdraw Application, or submit the required information ~~or materials (or request an extension),~~documentation, or the Application may be considered withdrawn.

34. Utility Reviews Application. Within 320 calendar days following the receipt of a complete Application, the Utility shall review the ~~lproposed~~ Interconnection Application and notify the Customer of one of the following determinations:

a. The ~~proposed~~ Generating Facility design appears to meet all Interconnection requirements and the Application is approved as submitted. ~~The Utility shall prepare an Interconnection Agreement and forward it to the Customer for review and signature in accordance with Step (5) below; or~~

b. The ~~proposed Generating Facility has failed to meet one or more of the screens, but the initial review indicates that Additional Review may enable the Utility to determine that the Generating Facility can be interconnected consistent with safety, reliability, and power quality. In such case, the Utility shall offer to perform additional review (typically about three hours of study) to determine whether minor modifications to the Distribution System (for example, changing meters, fuses, or relay settings) would enable the Interconnection to be made consistent with safety, reliability and power quality. The Utility shall provide to the Customer a non-binding, good faith estimate of the costs of such additional review, and/or such minor modifications. The Utility shall undertake the additional review or minor modifications only after the Customer consents to pay for the review and/or modifications. Such additional review will take place within 21 calendar days after the Customer has submitted payment for the estimated costs; or~~

~~c.~~ ~~The proposed~~ Generating Facility design has failed to meet one or more of the Utility's Interconnection requirements, and the Application is denied. The Utility shall provide an explanation of the reasons for the denial (in writing, ~~–~~unless otherwise requested by the Customer), and ~~specifies~~ specify what additional information or modifications to the Generating Facility or Distribution System are required in order to obtain approval of the ~~proposed~~ design.

~~c~~i. If the Application is denied, the Customer has 30 calendar days to ~~shall~~ notify the Utility ~~within 21 calendar days~~ whether or not it wishes to proceed with the project, and if the Customer~~. If the Customer does not wish to proceed with the project, or the Utility is not notified within the specified time-frame, the Application may be considered withdrawn. If the Customer~~ wishes to proceed with the ~~project~~Interconnection, ~~then~~ the Customer will select one of the following next steps within those 30 calendar days:~~a new Application shall be submitted~~

~~to the Utility for review and processing (Step (1) above is re-initiated), along with any additional information and/or modifications to the Generating Facility.~~

1. Utility performs a Supplemental Review in accordance with R14-2-2621 within 30 calendar days after the Customer notifies the Utility.

   a. If the Generating Facility meets the requirements outlined in the Supplemental Review section, then the Application is approved.

   b. If the Generating Facility fails to meet one or more of the requirements outlined in the Supplemental Review section, then the Customer can choose to withdraw the Application or may request processing under Level 3 Study Track.

2. Customer submits a revised request and Application is entered back into the Level 2 Application process within 30 calendar days after the Customer notifies the Utility.
3. Customer requests that Utility process the Application under Level 3 Study Track within 14 calendar days after the Customer notifies the Utility.

~~ii. Alternatively, the Customer may request processing under Level 3 Study Track and shall provide any additional information requested by the Utility and necessary to process the request under Level 3 Study Track.~~

~~45~~. Interconnection Agreement. If the Generating Facility meets all of the applicable Interconnection requirements and the Application is approved, then:

a. Within seven calendar days after the notice of Application approval, the Utility sends to the Customer the appropriate Interconnection Agreement for review and signature. (This step may be omitted if the Utility has received a pre-executed Interconnection Agreement).

~~a. The Utility shall send to the Customer the appropriate Interconnection Agreement for review and signature within 12 calendar days after providing notice of Application approval, or following receipt of any "as built" or final diagrams from the Customer.~~

~~b. The Customer shall review, sign, and return the Interconnection Agreement to the Utility.~~

~~c. The Customer shall complete installation of the Generating Facility within 1~~b. The Customer will submit to the Utility a copy of the final electrical clearance for the Generating Facility issued by the authority having jurisdiction, if required; and

c. The Customer will submit all necessary supplemental documents as specified by the Utility.~~80 calendar days after execution of the Interconnection Agreement, unless an installation schedule has been submitted with an alternative in-service date, or the parties have mutually agreed to~~

~~an extension. The Utility has the right to terminate any Interconnection Agreement, and the Application may be considered withdrawn, in the event that this time-frame is exceeded without extension.~~

56. Inspection and Testing. ~~The Customer shall contact the Utility to schedule the Utility site inspection and witness of the testing of the protective devices. The Utility site inspection and witness of the testing of the protective devices will occur within 12 calendar days of the Customer's request. The Utility may schedule metering replacement, if necessary, and labeling of Utility equipment to occur at the same time. A Utility may not charge for the initial site inspection unless a tariff containing such a fee is approved by the Commission.~~

~~a.~~ The Utility shall perform the site inspection ~~as arranged~~ and verify that the Generating Facility ~~, as best as can be determined,~~ is in compliance with all applicable Interconnection and code requirements. A Utility may not charge for the initial site inspection unless a tariff containing such a fee is approved by the Commission. At a minimum, the Utility shall verify the following:

~~i. An electrical permit and/or clearance has been issued by the authority having jurisdiction, if required;~~

~~a~~ii. All Generating Facility equipment is properly labeled;

~~b~~iii. The Generating Facility system layout is in accordance with the plant location and site plans submitted to the Utility;

~~c~~iv. ~~Generator~~ Inverter nameplate ratings are consistent with the information submitted to the Utility;

~~d~~v. The Utility has unrestricted 24-hour access to the Utility-owned production meter and Disconnect Switch, ~~(if required),~~ and the Disconnect Sswitch meets all applicable requirements; and

e. The inverter shuts down as required upon simulated loss of Utility Voltage.

f. The Utility shall communicate additional testing and startup requirements to the Customer at the Utility's discretion.

g.~~vi.~~ The Generating Facility is wired, as best as can be determined, in accordance with the electrical diagrams submitted to the Utility.

6. The Utility will install, at the Utility's expense, appropriate metering equipment if required.

~~y.~~

b. The Utility shall witness the required protective relay calibration and functional tests or accept a certified test report in lieu of witnessing the tests.

c. Before or at the time of the site inspection, the Utility shall:

i. Install appropriate metering if required;

ii. Label all Utility equipment; and

iii. Ensure that the Generating Facility is properly incorporated onto Utility operating maps and identified as a Backfeed source.

d. The Utility does not have the right to fail a site inspection in the event that any of the above three requirements (metering, Utility equipment labeling, and the identification of the Generating Facility on the operating maps) are not in place at the time of the site inspection. The Utility does have the right to fail any Generating Facility that does not meet the applicable Interconnection requirements, is not installed in accordance with the documentation submitted to the Utility, or as a result of any safety or protection violation.

7. Notification. Within seven calendar days of the The Utility shall determine whether or not the Generating Facility meets all applicable requirements following completion of the site inspection (and upon the receipt of all final applicable signed Interconnection documents.). T the Utility shall determine whether or not the Generating Facility meets all applicable requirements, and notify the Customer that:shall provide the Customer oral notification within 24 hours and written notification within five calendar days that:

a. The Generating Facility is approved for Pparallel Ooperation with the Distribution System per the agreed terms and conditions; or

b. The Generating Facility has failed to the inspection and does not meet one or more of the applicable requirements or a safety or protection violation has been identified, and the Generating Facility is not approved for Pparallel Ooperation. The Utility shall must provide the reasons (in writing unless otherwise requested by the Customer) for not approving Pparallel Ooperation. Furthermore, tThe Utility may has the right to take any reasonable steps (including locking open the Disconnect Switch) to prevent the Generating Facility from Pparallel Ooperation. Operation of a Generating Facility in parallel without Utility approval may result in immediate termination of electric service to the Customer.

8. Corrections. In the event that the Generating Facility does not pass the initial Utility site inspection, the Customer must correct any outstanding issues and notify the Utility within 30 calendar days of

the initial site inspection that all corrections have been made. If the Utility is not notified within that timeframe, the Application may be deemed withdrawn unless alternative arrangements have been made by the Customer with the Utility. The Utility must re-inspect the Generating Facility within seven calendar days of the Customer notice of correction. The Utility may charge a fee for each re-inspection, if a tariff containing such a fee is approved by the Commission.

9. Interconnection of Generation Facility. The installation must be interconnected within 180 calendar days of Application approval unless otherwise mutually agreed to by the Utility and the Customer.

~~8. Corrections (if necessary). In the event that the Generating Facility does not pass each Utility site inspection:~~

~~a. The Customer may schedule a re-inspection after correcting any outstanding issues. The Utility shall re-inspect upon 12 calendar days notice from the Customer to verify that the deficiencies have been remedied. A Utility may not charge a fee for a re-inspection unless a tariff containing such a fee is approved by the Commission. Following any site re-inspection where the Utility approves parallel operation of the Generation Facility, the Utility shall provide to the Customer such oral notification within 24 hours and such written notification within five calendar days that the Generation Facility is approved for parallel operation.~~

~~b. If updated diagrams are required to reflect "as-built" conditions, the Customer must submit the updated diagrams to the Utility for review and approval within 12 calendar days following the site inspection. The Utility shall process and mail an amendment to the Interconnection Agreement within seven calendar days after acceptance of the revised diagrams for Customer review and signature.~~

D. Customer Time-frames. The Utility time-frames contained herein do not include the time for the Customer to execute all agreements or submit all needed documentation. If at any point in the Level 2 Fast Track process, the Customer does not submit requested materials necessary to process the Application, or submit applicable executable agreements within 30 calendar days, or request an extension, the Application may be considered withdrawn.

E. Fees for Level 2 Fast Track Additional Review. A Utility may not charge a fee for an additional review, unless a tariff containing the hourly rate for additional review is approved by the Commission. The Utility shall provide a non-binding good faith estimate of the fee for such additional review. The Customer shall submit a deposit for the estimated fee before the additional review will be initiated. In

addition, the Customer shall have the responsibility for any costs of Utility facilities and equipment modifications necessary to accommodate the Customer's Interconnection.

R14-2-2620. Level 3 Study Track

A. Level 3 Study Track ~~is to be~~is available to Customers interconnecting a Generating Facility that is 1 MW or greater to the Distribution System and/or ~~used~~ for all Generating Facilities that do not meet the screening requirements for Level 1 Super Fast Track, ~~or~~ Level 2 Fast Track, or Supplemental Review. If the Generating Facility is inverter-based, the inverter must meet currently applicable codes and standards, including UL 1741 listed, and must be certified to meet the shutdown protective functions (under/over voltage, under/over frequency, and anti-Islanding) specified in IEEE 1547 or an equivalent standard. The Generating Facility must also meet all applicable codes and standards, as well as comply with the Utility's Interconnection Manual and Interconnection Agreement.

~~It is an in-depth engineering review of whatever aspects of generator performance and/or grid interaction the Utility deems necessary to study. More details shall be available in each Interconnection Manual. No review of the Generating Facility's protection equipment is required for generators that are certified, although the Utility may study the interface between the Generating Facility and the Distribution System. The Generating Facility is required to meet applicable local electric codes and standards, as well as comply with all terms and conditions of the Interconnection Manual and Interconnection Agreement.~~

B. Nothing in these procedures shall preclude the Customer and Utility from mutually agreeing to different time-frames specified in A.R.S. § 44-1764 or other procedures for the approval of interconnected operation of a Generating Facility, so long as the project progresses as agreed to by the parties.

C. The Level 3 Study Track steps are as follows:

1. Prior to Submitting Application. The Customer may contact the Utility at the conceptual stages of the design to discuss the proposed design, installation, and operation. Upon the Customer's request, the Utility shall meet with the Customer prior to submission of an Application.
2. Customer Submits Application. The Customer shall complete the Application and submit it to the Utility along with all required supplemental information which shall be noted on the Application form. A Utility may not charge an application fee, unless a tariff containing such a fee is approved by the Commission.

3. Application is Received and is Complete or Incomplete. The Utility ~~shall notify~~notifies the Customer within 1~~4~~2 calendar days of receipt of the Application, or transfer from Level 1 Super Fast Track, ~~or~~ Level 2 Fast Track, or Supplemental Review, as to whether it is complete or incomplete.
   a. When the Utility notifies the Customer that ~~If the~~an Application is incomplete, the Utility ~~shall~~ will specify what additional information and/or ~~material~~ documentation is necessary to complete the Application.
   b. The Customer has 30 calendar days after receipt of such notification to withdraw the Application, or ~~to~~ submit the missing information or ~~materials~~ documentation (or request an extension), or the Application may be considered withdrawn.
   c. After the Customer submits any missing information, the Utility has 1~~4~~2 calendar days to determine if the Application is complete or incomplete and notify the Customer.
4. Utility Reviews Application. Within ~~12~~ 30 calendar days following the receipt of a complete Application, the Utility shall review the ~~proposed~~ Interconnection Application and notify the Customer of one of the following determinations:
   a. The ~~proposed~~ Generating Facility design appears to meet all of the applicable Interconnection requirements, and no further studies, special protective requirements, or system modifications are required. The Utility shall prepare an Interconnection Agreement and forward it to the Customer for review and signature in accordance with Step (10) below; or
   b. The Generating Facility cannot be interconnected without further information, data, engineering studies, or modifications to the Distribution System or Generating Facility. In this case, the Interconnection proceeds according to the following meeting and study process, as deemed necessary by the Utility. All itemized costs and timelines for the studies are to be disclosed and agreed upon by the Utility and Customer prior to the start of each one. In addition, all studies are to be made available to the Customer directly after their completion.
5. Scoping Meeting. This meeting is an initial review meeting between the Utility and the Customer, where the Customer provides a general overview of the proposed Generating Facility design and the Utility provides general information on system conditions at the proposed Point of Interconnection. This meeting also allows the Utility and the Customer to discuss which studies are needed. The Utility and the Customer will bring to the meeting personnel, including system engineers and other resources as may be reasonably required to accomplish the purpose of the

meeting. This meeting shall be held within 142 calendar days after an Application is deemed complete unless other mutual agreements are made.

6. Acknowledgement Letter. The Utility will provide an acknowledgement letter following the Scoping Meeting upon request from the Customer. The letter will describe the project scope and include a good faith cost estimate by the Utility. If requested, the letter will be sent out within 142 calendar days following the Scoping Meeting.
7. Feasibility Study. If requested by the Customer, the Utility shall undertake a Feasibility Study. The Utility shall provide the Customer, within 142 calendar days after the Scoping Meeting, a Feasibility Study agreement including an outline of the scope of the study and a non-binding, good faith, detailed estimate of the materials and labor costs to perform the study. The Utility shall conduct the Feasibility Study after the Customer executes the Feasibility Study agreement, provides all requested Customer information necessary to complete the Feasibility Study, and pays the estimated costs.
    a. The Feasibility Study shall be completed within 21 calendar days, unless other mutually agreeable terms are made.
    b. The Feasibility Study will review short circuit currents including contribution from the proposed generator as well as coordination of and potential overloading of distribution circuit protection devices. This study principally benefits the Customer by providing initial details and ideas on the complexity and likely costs to interconnect prior to commitment of costly engineering review. The Feasibility Study may also be used to focus or eliminate some or all of the more intensive System Impact study.
8. System Impact Study. If deemed necessary by either party, the Utility shall undertake a System Impact Study. The Utility shall provide the Customer, within 20 calendar days after completing the previous study or meeting, a System Impact Study agreement including an outline of the scope of the study and a non-binding, good faith, detailed estimate of the materials and labor costs to perform the study. The Utility shall conduct the System Impact Study after the Customer executes the System Impact Study agreement, provides all requested Customer information necessary to complete the System Impact Study, and pays any required deposit of the estimated costs.
    a. The System Impact Study will be completed within 30 calendar days, unless other mutually agreeable terms are made.

b. The System Impact Study reveals all areas where the Distribution System would need to be upgraded to allow the Generating Facility to be built and interconnected as designed. It may include discussions with the Customer about potential alterations to generator design, including downsizing to limit grid impacts.

c. If the Utility determines, in accordance with Good Utility Practice, that the Distribution System modifications required to accommodate the proposed Interconnection are not substantial, the System Impact Study shall identify the scope and detailed cost of the modifications.

d. If the Utility determines, in accordance with Good Utility Practice, that the system modifications to the Distribution System are substantial, a Facilities Study shall be performed.

e. Each Utility shall include in its Interconnection Manual a description of the various elements of a System Impact Study it would typically undertake pursuant to this Section including:

i. Load Flow Study;

ii. Short-Circuit Study;

iii. Circuit Protection and Coordination Study;

iv. Impact on System Operation;

v. Stability Study (and the conditions that would justify including this element in the Impact Study); and

vi. Voltage Collapse Study (and the conditions that would justify including this element in the Impact Study).

9. Facilities Study. The Utility shall undertake a Facilities Study if needed based on the outcome of the System Impact Study. The Utility shall provide the Customer, within seven calendar days after completing the previous study or meeting, a Facilities Study agreement including an outline of the scope of the study and a non-binding, good faith, detailed estimate of the materials and labor cost to perform the study. The Utility shall conduct the Facilities Study after the Customer executes the Facilities Study agreement, provides all requested Customer information necessary to complete the study, and pays the estimated costs.

a. The Facilities Study shall be completed within 30 calendar days, unless other mutually agreeable terms are made.

b. The Facilities Study delineates the detailed costs of construction and milestones. Construction may include new circuit breakers, relocation of reclosers, new Utility grid extensions, reconductoring lines, new transformers, protection requirements and interaction.

10. Interconnection Agreement. If the Generating Facility meets all of the applicable Interconnection requirements, all items identified in any meeting or study have been resolved and agreed to (if applicable), and the Utility has received the final design drawings, then:
    a. The Utility shall send to the Customer within ~~12~~seven calendar days an executable Interconnection Agreement, which shall include as an exhibit the cost for any required Distribution System modifications.
    b. The Customer shall review, sign, and return the Interconnection Agreement and any balance due for Interconnection studies or required deposit for facilities.
    c. The Customer shall then complete installation of the Generating Facility and the Utility shall complete any Distribution System modifications, according to the milestones set forth in the Interconnection Agreement. The Utility shall employ best reasonable efforts to complete such system upgrades in the shortest time practical.
11. Inspection and Testing. ~~–~~The Customer shall contact the Utility to schedule the Utility site inspection and witness of the testing of the protective devices. The Utility site inspection and witness of the testing of the protective devices shall occur within 1~~4~~2 calendar days of notice from the Customer. The Utility may schedule metering replacement, if necessary, and labeling of Utility equipment to occur at the same time.
    a. The Utility shall perform the site inspection and verify that the Generating Facility~~, as best as can be determined,~~ is in compliance with all applicable Interconnection and code requirements. At a minimum, the Utility shall verify the following:
        i. An electrical permit and/or clearance has been issued by the authority having jurisdiction, if required;
        ii. All Generating Facility equipment is properly labeled;
        iii. Generating Facility system layout is in accordance with the plant location and site plans submitted to the Utility;
        iv. Generator nameplate ratings are consistent with the information submitted to the Utility;
        v. The Utility has unrestricted access to the Disconnect Switch (if required), and the switch meets all requirements; and
        vi. The Generating Facility is wired, as best can be determined, in accordance with the electrical diagrams submitted to the Utility.

b. The Utility shall witness the required protective relay calibration and functional tests. The Utility may accept a certified test report in lieu of witnessing the tests.

c. The Utility shall:

i. Install all appropriate metering, if required;

ii. Label all Utility equipment; and

iii. Ensure that Generating Facility is properly incorporated onto Utility operating maps and identified as a Backfeed source.

d. The Utility may fail any Generating Facility that does not meet the applicable Interconnection requirements, is not installed in accordance with the documentation submitted to the Utility, or has any safety or protection violation.

12. Notification. Immediately following completion of the site inspection (and upon receipt of all final applicable signed Interconnection documents) the Utility shall determine whether or not the Generating Facility meets all applicable requirements. The Utility shall provide the Customer oral notification within 24 hours and written notification within ~~five~~ seven calendar days that:

a. The Generating Facility is approved for P~~p~~arallel O~~o~~peration with the Distribution System per the Interconnection Agreement; or

b. The Generating Facility has failed to meet one or more of the applicable requirements or a safety violation has been identified, and the Generating Facility is not approved for P~~p~~arallel O~~o~~peration. The Utility shall provide the reasons (in writing unless otherwise requested by the Customer) for not approving P~~p~~arallel O~~o~~peration. The Utility may disconnect and lock out the Generating Facility to prevent the Generating Facility from P~~p~~arallel O~~o~~peration, and the Customer must reschedule the site inspection with the Utility. Operation of a Generating Facility in parallel without written approval from the Utility may result in immediate termination of electric service to the Customer.

13. Correction (if necessary). In the event that the Generating Facility does not pass the initial Utility site inspection:

a. The Customer may schedule a re-inspection after correcting the deficiencies identified by the Utility. The Utility shall re-inspect within 1~~4~~2 calendar days notice from the Customer to verify that the deficiencies have been remedied. Following any site re-inspection where the Utility approves P~~p~~arallel O~~o~~peration of the Generation Facility, the Utility shall provide to

the Customer such oral notification within 24 hours and such written notification within ~~five~~ seven calendar days that the Generation Facility is approved for P~~p~~arallel O~~o~~peration.

b. If updated documentation is required to reflect "as-built" conditions, the Customer must submit the updated documentation to the Utility for review and approval within 1~~4~~2 calendar days following the site inspection. The Utility may not charge a fee unless a tariff containing such a fee is approved by the Commission. The Utility shall process and mail an amendment to the Interconnection Agreement within seven calendar days after receipt and acceptance of the updated documentation for Customer review and signature.

D. Customer Time-frames. The Utility time-frames contained herein do not include the time for the Customer to execute all agreements or submit all needed documentation. If at any point in the Level 3 Study Track process, the Customer does not submit requested materials necessary to process the Application or applicable executable agreements within 30 calendar days, or request an extension, the Application may be considered withdrawn.

E. Fees for Level 3 Study Track Interconnection. A Utility may not charge a fee for an engineering review, unless a tariff containing the hourly rate for engineering review is approved by the Commission. The Utility shall provide a non-binding good faith estimate of the fee for such engineering review. The Customer must submit a deposit for the estimated fee before the engineering review will be initiated. In addition, costs for Utility facilities and/or equipment modifications necessary to accommodate the Generating Facility's Interconnection will be the responsibility of the Customer. The Customer may not be charged for the review of a certified generator's protection equipment. The Utility may not charge a fee for an initial inspection or for a re-inspection, unless a tariff containing such a fee is approved by the Commission.

R14-2-2621. Supplemental Review

A. If supplemental review is required, the Utility shall provide a good faith estimate of the costs of the review and a written agreement setting forth the terms of the supplemental review within 20 calendar days of the determination that a Supplemental Review is required. The Customer shall sign the written agreement and submit a deposit for the estimated costs of the supplemental review within 14 calendar days of receipt of the good faith estimate and written agreement. If the written agreement and deposit have not been received by the Utility within that timeframe, the Interconnection request shall continue to be evaluated under the Level 3 Study Track unless it is withdrawn by the Customer.

B. The Customer may specify the order in which the Utility will complete the screens in section D below.

C. The Customer shall be responsible for the Utility's actual costs for conducting the supplemental review. The Customer must pay any review costs that exceed the deposit within 30 calendar days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the Utility will return such excess without interest within 30 calendar days of the invoice date.

D. Within 20 calendar days following receipt of the deposit for a supplemental review, the Utility shall: (1) perform a supplemental review using the screens set forth below; (2) notify the Customer in writing of the results; and (3) include with the notification copies of the analysis and data underlying the Utility's determinations under the screens. Unless the Customer provided instructions for how to respond to the failure of any of the supplemental review screens below at the time the Customer accepted the offer of supplemental review, the Utility shall notify the Customer following the failure of any of the screens, If the Utility is unable to perform the screen in section D.1 below, within two calendar days of making such determination the Utility will obtain the Customer's permission to: (1) continue evaluating the Interconnection under this section D; (2) terminate the supplemental review and continue evaluating the Generating Facility under Level 3 Study Track; or (3) terminate the supplemental review upon withdrawal of the Interconnection request by the Customer.

1. Minimum Load Screen: Where 12 months of line section minimum load data (including onsite load but not station service load served by the Generating Facility) are available, can be calculated, can be estimated from existing data, or can be determined from a power flow model, the aggregate Generating Facility capacity on the line section is less than 100% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the Generating Facility. If minimum load data is not available, or cannot be calculated, estimated or determined, the Utility shall include the reason(s) that it is unable to calculate, estimate or determine minimum load in its supplemental review results notification under section D.
   a. The type of generation used by the Generating Facility will be taken into account when calculating, estimating, or determining circuit or line section minimum load relevant for the application of screen D.1. Solar photovoltaic (PV) generation systems with no battery storage shall use daytime minimum load (i.e. 10 a.m. to 4 p.m. for fixed panel systems and 8 a.m. to 6 p.m. for PV systems utilizing tracking systems), while all other generation shall use absolute minimum load.

b. When this screen is being applied to a Generating Facility that serves some station service load, only the net injection into the Utility's electric system will be considered as part of the aggregate generation.

c. Utility shall not consider, as part of the aggregate generation for purposes of this screen, generating facility capacity known to be already reflected in the minimum load data.

2. Voltage and Power Quality Screen: In aggregate with existing generation on the line section: (1) the voltage regulation on the line section will be maintained in compliance with relevant requirements under all system conditions; (2) the voltage fluctuation will be within acceptable limits as defined by IEEE Standard 1453, or utility practice similar to IEEE Standard 1453; and (3) the harmonic levels will meet IEEE Standard 519 limits.

3. Safety and Reliability Screen: The location of the Generating Facility and the aggregate generation capacity on the line section will not create impacts to safety or reliability that cannot be adequately addressed without application of the Interconnection Study process. The Utility shall give due consideration to the following and other factors in determining potential impacts to safety and reliability in applying this screen:

a. Whether the line section has significant minimum loading levels dominated by a small number of customers (e.g., several large commercial customers);

b. Whether the loading along the line section is uniform or even;

c. Whether the Generating Facility is located in close proximity to the substation (i.e., less than 2.5 electrical circuit miles), and whether the line section from the substation to the Point of Interconnection is a main feeder line section rated for normal and emergency ampacity;

d. Whether the Generating Facility incorporates a time delay function to prevent reconnection of the generator to the system until system voltage and frequency are within normal limits for a prescribed time;

e. Whether operational flexibility is reduced by the Generating Facility, such that transfer of the line section(s) of the Generating Facility to a neighboring distribution circuit/substation may trigger overloads or voltage issues;

f. Whether the Generating Facility employs equipment or systems certified by a recognized standards organization to address technical issues such as, but not limited to, Islanding, reverse power flow, or voltage quality.

E. If the Interconnection passes the supplemental screens in D.1, D.2, and D.3 above, the Interconnection request will be approved and the Utility shall provide the Customer with an executable Interconnection Agreement within the timeframes established in sections E.1 and E.2 below. If the Interconnection fails any of the supplemental review screens and the Customer does not withdraw its Interconnection request, it will continue to be evaluated under the Level 3 Study Track consistent with section E.3 below.

1. If the Interconnection passes the supplemental screens in sections D.1, D.2, and D.3 above and does not require construction of facilities by the Utility on its own system, the Interconnection Agreement shall be provided within 14 calendar days after the notification of the supplemental review results.
2. If Interconnection facilities or minor modifications to the Utility's system are required for the Interconnection to pass the supplemental screens in sections D.1, D.2, and D.3 above, and the Customer agrees to pay for the modifications to the Utility's electric system, the Interconnection Agreement, along with a non-binding good faith estimate for the Interconnection facilities and/or minor modifications, shall be provided to the Customer within 14 calendar days after receiving written notification of the supplemental review results.
3. If the Interconnection would require more than interconnection facilities or minor modifications to the Utility's system to pass the supplemental screens in sections D.1, D.2, and D.3 above, the Utility shall notify the Customer, at the same time it notifies the Customer with the supplemental review results, that the Interconnection request shall be evaluated under the Level 3 Study Track unless the Customer withdraws its Generating Facility.

R14-2-262~~1~~2. Interconnection to a Secondary Spot Network System

A. The requirements for interconnecting a Generating Facility to ~~a~~ Secondary Spot Network System are different than those for Interconnection to radial distribution systems. In the Secondary Spot Network System, there are technical requirements to be considered particularly with the design and operational aspects of network protectors that are not required on radial systems.

~~**B.** The Generating Facility must meet all of the following conditions:~~

~~1. Be less than 10 kW;~~

~~2. Qualify as Certified Equipment; and~~

~~3. Be less than or equal to 10% of the Customer's verifiable minimum load during the operation of the inverter. (For photovoltaics, the minimum load refers to the daytime minimum.)~~

B~~C~~. The process for interconnecting to a Secondary Spot Network System will be determined by the Utility.

C. For interconnection of a proposed Generation Facility to the load side of spot network protectors, the proposed Generation Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5% of the spot network's maximum load or 50 kW. Under no condition shall the interconnection of a Generating Facility result in a backfeed of a Spot Network or cause unnecessary operation of any Spot Network protectors.

R14-2-2623. Disconnect Switch Requirements

Customer shall install and maintain a visual-open, manually operated, load break Disconnect Switch that will completely open and isolate all ungrounded conductors of Customer's Generating Facility from the Utility's Distribution System. For multi-phase systems, the Disconnect Switch shall be gang-operated. Additional requirements shall be specified by the serving Utility's Interconnection Manual.

R14-2-2624. Energy Storage System General Requirements

A. All energy storage systems shall meet all applicable codes and standards in accordance with Section R14-2-2613 of these Interconnection Rules.

B. These Rules apply to energy storage systems owned by a Customer or third party.

C. Energy storage systems owned, operated and maintained by the Utility shall be installed in accordance with the Utilities Interconnection Manual and are exempt from these Rules.

D. Stand alone energy storage systems connecting behind a Customer's meter for the purposes of peak shaving and/or back up Customer load which are designed to operate as Non-Exporting Systems are not subject to these rules. After Customer installation of said system, the Customer shall submit relevant information about the energy storage system as specified in the Utility's Interconnection Manual to the Utility.

E. Energy storage systems designed to operate as Exporting Systems or energy storage systems working in conjunction with other generator(s) will follow the Application process outlined in Sections R14-2-2618, R14-2-2619, R14-2-2620, and R14-2-2621.

F. Energy storage systems connecting directly to the Utility's Distribution System and not installed behind a Customer's meter for the purpose of providing ancillary services and/or capacity support will

be subject to the Utility's Interconnection Study and Application process irrespective of AC Output rating and time frames for review.

G. At a minimum, the following grid support features are required at the Point of Interconnection for energy storage systems connecting directly to the Utility's Distribution System unless otherwise agreed to by the serving Utility:

1. Capability to operate in Power Factor Control ("PFC") mode at a fixed power factor within the range of plus or minus 0.95 pf at any power output level up to the maximum rated kW output of the Generating Facility.
2. Capability to operate at any fixed reactive power ("kVAR") output at any power level within the full reactive power range calculated in (1) above while the Generating Facility is producing power.
3. Capability to operate in Automatic Voltage Regulating ("AVR") mode to regulate the voltage to a selected voltage set point within a voltage range of 0.95 pu to 1.05 pu, to the extent that such voltage regulation can be achieved with the available reactive power calculated in Section (F1). Voltage regulation shall be within 0.50% of the voltage set point.

R14-2-2625. Advanced Inverter Requirements

A. Generating Facilities utilizing inverter based technology at the AC output range from 1 kW to 10 MW level shall be connected via advanced inverter(s), capable of, at minimum, the advanced grid support features specified in R14-2-2625(B). The advanced inverter(s) shall have monitoring and remote control capability using the communication methods and protocols listed in the Utility's Interconnection Manual.

B. At a minimum, the following grid support features are required unless otherwise specified by the Utility's Interconnection Manual:

1. Volt/VAR Mode – Provide voltage/VAR control through dynamic reactive power injection through autonomous responses to local voltage measurement
2. Volt/Watt Mode – Provide voltage/watt control though dynamic active power injection through autonomous responses to local voltage measurement
3. Fixed Power Factor – Provide reactive power by a fixed power factor
4. Anti-Islanding – Support anti-Islanding to trip off under extended anomalous conditions
5. Low/High Voltage Ride-through (LHVRT) – Provide ride-through of low/high voltage excursions beyond normal limits

6. Low/High Frequency ride-through (LHFRT) – Provide ride-through of low/high frequency excursions beyond normal limits
7. Ramping- Capability to define active and reactive power ramp rates
8. Soft-Start Reconnection – Reconnect after grid power is restored
9. Remote ON/OFF - Capability to remotely turn ON or turn OFF the inverter
10. Power Curtailment – Capability to remotely curtail the active power production within the range of 0% to 100%
11. Frequency/Watt Mode – Provide Frequency/Watt control to counteract frequency excursions beyond normal limits by decreasing or increasing real power.

R14-2-2626. Dispute Resolution

A. If a dispute arises between the parties regarding a provision contained in this Document and/or Agreement, or a party's performance of its obligations as stated in this Document and or Agreement, or any other matter governed by the terms of the Document and/or Agreement, the parties agree that such dispute will be resolved in the manner prescribed in this section.

1. Notification and Response. Promptly upon the occurrence of the dispute, the aggrieved party will notify the other party in writing (the "Claimant's Statement"), setting forth in sufficient detail the basis for the dispute, the aggrieved party's position, and its proposal for resolution of the dispute. Within ten (10) business days following receipt of the Claimant's Statement, the other party will respond in writing (the "Responsive Statement") setting forth in sufficient detail the respondent's position and its proposal for resolution of the dispute.
2. Good Faith Negotiation. Within ten (10) business days after the aggrieved party's receipt of the Responsive Statement, the parties will meet and attempt in good faith to expeditiously negotiate a resolution to the dispute. In attendance for each party at that opening session and throughout the dispute resolution procedure described in this section will be a representative or representatives of each party who are authorized to act for the party and resolve this dispute without resort to higher authority.
3. Dispute Resolution by Mediation. Any dispute(s) arising out of or relating to this Document may be subject to binding mediation by a mututally acceptable third party mediator. If no mediator is mutually acceptable, then a mediator may be appointed by the Arizona Office of the American Arbitration Association, at the request of any party. Such mediation shall be subject to the laws of the State of Arizona. The costs of third party mediation shall be borne by the losing party as

prescribed by the mediator. This section shall not preclude one or both parties from requesting mediation by the Commission.

4. Arizona Corporation Commission. In the event such dispute is not resolved by mediation, then the parties consent to resolution of any such dispute by the Commission.

R14-2-2627 Pre-Application Report

A. Pre-Application Report Request

1. A Pre-Application Report Request shall include:
   a. Contact information (name, address, phone and email).
   b. A proposed Point of Interconnection. The proposed Point of Interconnection shall be defined by latitude and longitude, site map, street address, utility equipment number (e.g., pole number),meter number, account number or some combination of the above sufficient to clearly identify the location of the Point of Interconnection.
   c. Generation technology and fuel source.
   d. A non-refundable processing fee, if a tariff containing such a fee is approved by the Commission.
2. In requesting; a Pre-Application Report, a potential Applicant understands that:
   a. The existence of "Available Capacity" in no way implies that an interconnection up to this level may be completed without impacts since there are many variables studied as part of the interconnection review process.
   b. The distribution system is dynamic and subject to change.
   c. Data provided in the Pre-Application Report may become outdated and not useful at the time of submission of the complete Interconnection Request.

B. Pre-Application Report. Within 12 calendar days of receipt of a completed Pre-Application Report Request, the Utility shall provide a Pre-Application Report. The Pre-Application Report shall include the following; information, if available:

1. Total Capacity (MW) of substation/area bus or bank and circuit likely to serve proposed site.
2. Allocated Capacity (MW) of substation/area bus or bank and circuit likely to serve proposed site
3. Queued Capacity (MW) of substation/area bus or bank and circuit likely to serve proposed site.
4. Available Capacity (MW) of substation/area bus or bank and circuit most likely to serve proposed site.

5. Whether the proposed Generating Facility is located on an area, spot or radial network.
6. Substation nominal distribution voltage or transmission nominal voltage if applicable.
7. Nominal distribution circuit voltage at the proposed site.
8. Approximate circuit distance between the proposed site and the substation.
9. Relevant Line Section(s) peak load estimate, and minimum load data, when available.
10. Number of protective devices and number of voltage regulating devices between the proposed site and the substation/area.
11. Whether or not three-phase power is available at the site and/or distance from three-phase service.
12. Limiting conductor rating from proposed Point of Interconnection to distribution substation.
13. Based on proposed Point of Interconnection, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.

C. The Pre-Application Report need only include pre-existing data. A Pre- Application Report request does not obligate the Utility to conduct a study or other analysis of the proposed project in the event that data is not available. If the Utility cannot complete all or some of a Pre-Application Report due to lack of available data, the Utility will provide the potential Applicant with a Pre- Application Report that includes the information that is available and identify the information that is unavailable. Notwithstanding any of the provisions of this Section, the Utility shall, in good faith, provide Pre-Application Report data that represents the best available information at the time of reporting.

R14-2-26282. Utility Reporting Requirements

A. Interconnection Manual. Each Utility shall file an Interconnection Manual for approval with the Commission no later than 90 calendar days after adoption of this Article. If the utility subsequently makes any substantive revisions to its Interconnection Manual, it shall docket the revisions at least 60 days prior to the proposed effective date, for Commission approval. If the change is contested, the Staff may seek a suspension of the matter for further review. If the substantive revision to the Interconnection Manual is related to health or safety, then the revision shall be docketed with the Commission and the revision shall become effective immediately, subject to subsequent review and approval by the Commission. Once any substantive revisions to the utility's Interconnection Manual have been approved by the Commission, the utility shall docket an updated Interconnection Manual with the Commission within 10 days of the Commission's order approving the changes. ~~An updated~~

~~Interconnection Manual shall be provided to the Commission upon any substantive revision by the Utility and shall become effective within 60 days unless otherwise acted upon by the Commission.~~

B. Documentation of projects. Each Utility shall maintain records concerning each Application received for Interconnection and P~~p~~arallel O~~o~~peration of Distributed Generation. Such records shall include the date each Application is received, documents generated in the course of processing each Application, correspondence regarding each Application, the final disposition of each Application, and the date on which the Application was approved (if approved).

C. Annual Interconnection report to the Commission. By March 30 of each year, each Utility shall file with the Commission a Distributed Generation Interconnection report for the preceding calendar year that ~~lists the new Generating Facilities interconnected to the Distribution System since the previous year's report, any Distributed Generation facilities no linger interconnected with the Distribution System since the previous report, and the capacity of each Generating Facility. The annual report~~ shall include, for the reporting period, a summary of the number of complete Applications received, the number of complete Applications approved, the number of complete Applications denied by level, and the reasons for denial. The annual report shall also include a list of special contracts, approved by the Commission during the reporting period, that provide discounted rates to consumers as an alternative to self-generation.

TITLE 14. PUBLIC SERVICE CORPORATIONS; CORPORATIONS AND ASSOCIATIONS; SECURITIES REGULATION

CHAPTER 2. CORPORATION COMMISSION

FIXED UTILITIES

ARTICLE 26. INTERCONNECTION OF DISTRIBUTED GENERATION FACILITIES

R14-2-2628. Utility Reporting Requirements

R14-2-2601. Definitions

In this Article, unless otherwise specified:

1. "AC" means alternating current.
2. "Application" means the standard form for applying to interconnect a Generating Facility with the Distribution System.
3. "Backfeed" means to energize a section of a Utility electric system that is supplied from a source other than its normal source.
4. "Business Days" means Monday through Friday, excluding federal and Arizona state holidays.
5. "Certified Equipment" means a specific generating and protective equipment system or systems that have been certified as meeting the requirements in R14-2-2612 relating to testing, operation, safety, and reliability by an entity approved by the Commission.
6. "Clearance" means a statement, with documentation, from the Utility that said line or equipment is disconnected from all known sources of power and tagged, and that for safety purposes all proper precautionary measures have been taken and those workers may proceed to inspect, test, and install ground on the circuit.
7. "CFR" means Code of Federal Regulations.
8. "Commission" means the Arizona Corporation Commission.
9. "Customer" means an electric consumer that generates electricity on the consumer's side of the Utility meter.
10. "DC" means direct current.
11. "Disconnect Switch" means a device that the Customer is required to install and maintain that is a visible open, manual, gang-operated, load break disconnect device, capable of being locked in a visible open position by a standard Utility padlock that will completely isolate the Generating Facility from the Distribution System. If the voltage is over 500 volts, it must be capable of being grounded on the Utility side.
12. "Distributed Generation" means any type of Customer electrical generator, static inverter, or Generating Facility interconnected with the Distribution System that either has the capability of being operated in electrical parallel with the Distribution System or can feed a Customer load that can also be fed by the Distribution System.
13. "Distribution System" means the infrastructure constructed, maintained, and operated by a Utility to deliver electric service at the distribution level (less than 69 kV) to retail consumers.

14. "Exporting System" means any type of Generating Facility that can continuously Backfeed the Distribution System.
15. "Facilities Study" means a comprehensive analysis of the actual construction needed to take place based on the outcome of the System Impact Study.
16. "Fault Current" means the level of current that can flow if a short circuit is applied to a voltage source.
17. "Feasibility Study" means a preliminary review of the potential impacts on the Distribution System that will result from the proposed Interconnection.
18. "Generating Facility" means all or part of the Customer's electrical generator(s) or inverter(s) together with all protective, safety, and associated equipment necessary to produce electric power at the Customer's facility. A Generating Facility also includes any QF.
19. "Good Utility Practice" means any of the practices, methods, and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods, and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety, and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.
20. "IEEE" means Institute of Electrical and Electronics Engineers.
21. "Interconnection Agreement" means an agreement, together with appendices, signed between the Utility and the Customer, covering the terms and conditions governing the Interconnection and operation of the Generating Facility with the Utility.
22. "Interconnection" means the physical connection of a Generating Facility to the Distribution System.
23. "Interconnection Manual" means a separate document developed and maintained by each Utility, made available on each Utility's web site, and approved by the Commission, containing detailed technical, safety, and protection requirements necessary to interconnect a Generating Facility to the Distribution System.

24. "Interconnection Study" means a study that may be undertaken by a Utility (or a Utility-designated third party) in response to its receipt of a completed Application. An Interconnection Study may include, but not be limited to, a Feasibility Study, a System Impact Study, and a Facilities Study.
25. "Island" or "Islanding" means a condition in which a portion of the Distribution System is energized solely by one or more local electric power systems throughout the associated Point of Interconnection while that portion of the Distribution System is electrically separated from the rest of the Distribution System. An Island can be either intentional (planned) or unintentional (unplanned).
26. "kW" means kilowatt.
27. "MW" means megawatt.
28. "Non-Exporting System" means a system in which there is no continuous export of power from the Generating Facility to the Distribution System.
29. "NRTL" means a Nationally Recognized Testing Laboratory.
30. "Parallel Operation" means the operation of a Generating Facility that is electrically interconnected to a bus common with the Distribution System, either on a momentary or continuous basis.
31. "Point of Interconnection" means the physical location where the Utility's service conductors are connected to the Customer's service conductors to allow Parallel Operation of the Generating Facility with the Distribution System.
32. "QF" means Qualifying Facility, any cogeneration or small power production facility that meets the criteria for size, fuel use, efficiency, and ownership as promulgated in 18 CFR, Chapter I, Part 292, Subpart B of the Federal Energy Regulatory Commission's Regulations.
33. "Relay" means an electric device that is designed to interpret input conditions in a prescribed manner and after specified conditions are met to respond to cause contact operation or similar abrupt change in associated electric control circuits.
34. "Secondary Spot Network System" means an AC power Distribution System in which a Customer is simultaneously served from three-phase, four-wire low-voltage (typically 480V) circuits supplied by two or more network transformers whose low-voltage terminals are connected to the low-voltage circuits through network protectors. The low voltage circuits do not have ties to adjacent or nearby secondary network systems. The Secondary Spot Network System has two or more high-voltage primary feeders. These primary feeders are either dedicated network feeders that serve only other network transformers, or a non-dedicated network feeder that serves radial

transformers in addition to the network transformer, depending on network size and design. The system includes automatic protective devices and fuses intended to isolate faulted primary feeders, network transformers, or low-voltage cable sections while maintaining uninterrupted service to the consumers served from the low-voltage circuits.

35. "System Impact Study" means a full engineering review of all aspects of the Generating Facility's impact on the Distribution System, including power flow, Utility system protective device coordination, generator protection schemes (if not certified), stability, voltage collapse, frequency impacts, and short circuit study.
36. "UL" means Underwriters Laboratories Inc.
37. "Utility" means an electric distribution company that constructs, operates, and maintains its Distribution System for the receipt and/or delivery of electricity.

R14-2-2602. Applicability

A. These regulations:

1. Apply to any Generating Facility with a power rating of 15 MW or less, operating (or applying to operate) in parallel with a Distribution System, subject to Commission jurisdiction;
2. Establish technical and procedural requirements, terms, and conditions to promote the safe and effective Parallel Operation of a Generating Facility with the Distribution System;
3. Include provisions for interconnecting to a radial or Secondary Spot Network System; and
4. Include three distinct types of Generating Facilities:
   a. solid-state or static inverters,
   b. induction machines, and
   c. synchronous machines.

B. The electric rates and schedules, terms and conditions of service, or other contract provisions governing the electric power sold by a Utility to an Arizona retail consumer are subject to the jurisdiction of the Commission and when the Utility purchases excess power from a QF under 18 CFR 292.303 and 18 CFR 292.306 (2004).

C. The Utility has specific Interconnection, contractual, and inspection requirements that must be complied with and information that needs to be submitted for all interconnected Generating Facilities. These may include protective relaying, metering, special rate schedules, applicable safety devices, and information requirements as specified in the Interconnection Manual.

R14-2-2603. Types of Generating Facilities

A. Generating Facilities include induction and synchronous electrical generators as well as any type of electrical inverter capable of producing AC power. A Generating Facility may be operated as an Exporting System that exports power to the Distribution System (on a continuous basis), or as a Non-Exporting System that does not export power on a continuous basis.

1. Exporting System. A continuous uninterruptible power supply, a unit without grid tie capability, and an islanding inverter technology are not considered as an Exporting System provided it does not continuously Backfeed the Distribution System.
2. Non-Exporting System. If the Customer claims a Non-Exporting System, an independent third party certification may be required ensuring that the system meets the non-export requirements.
    a. A Non-Exporting System may be used to supply part or all of the Customers load continuously or during a Utility power outage. The system may be sized such that the export of power is not possible or include certified inverter control functions to prevent the continuous export of power. All control functions must be listed by an NRTL for the purpose as used, and also inspected and approved by the jurisdictional electrical inspection agency.
    b. There are three sub-types of a Non-Exporting System:
        i. Inadvertent export system. An inadvertent export system utilizes control functions that limit the export of electrical power from the Generating Facility to the Distribution System. This option requires that all of the following conditions be met: (a) the Generating Facility must utilize only UL-l 741 certified or UL-l 74 l SA certified inverters: (b) the magnitude of export shall be less than the Generating Facilities nameplate rating (kVA gross) and the duration of export of power from the Customers Generating Facility shall be less than two (2) seconds for any single event; (c) the Generating Facility must monitor that total energy export is maintained to be no more than the Generating Facilities nameplate rating (kVA gross) multiplied by fifteen (15) minutes per month (e.g. for a 100 kVA gross nameplate Generating facility, the maximum energy allowed to be exported for a 30-dav month is 25 kWh) (d) must result in the Generating Facility disconnecting from the Distribution System, ceasing to energize the Distribution System or halting energy production within two seconds alter the period of uninterrupted export exceeds two (2) seconds, (e) Failure of the control or inverter system for more than thirty (30) seconds, resulting from loss of control signal, loss of control power or a single component failure or related control sensing

of the control circuitry must result in the Generating Facility entering a safe operating mode where inadvertent export events will not occur.

ii. Backup system. A backup system transfers electrical load between the Distribution System and the Generating Facility by means of a transfer scheme. A Backup System synchronizes the Generation Facility with the Distribution System for a period not to exceed 2 seconds for the purpose of uninterrupted load transfer. A Backup System is useful for a Customer who wishes to have greater reliability of electric service. Additionally. This approach allows the Customer to more effectively test the switchgear and generator with load during weekly and monthly testing.

iii. Portable generator. Portable generator are not designed to be connected to a building's permanent wiring system, and are not to be connected to any such wiring unless a permanent and approved transfer switch is used. Failure to use a transfer switch can result in unintentional Backfeed into the Distribution System. A portable generator's transfer scheme must meet open transition requirements.

R14-2-2604. Customer Rights and Responsibilities

A. A Customer has the right to submit an Application to interconnect a Generating Facility with the Distribution System. The Customer has the right to expect prompt and professional responses from the Utility during the Interconnection process. The Customer has the right to expect good faith cost estimates, outlines of the proposed work, supporting data, and justification for proposed work before the Utility undertakes any studies or system upgrades to accommodate the Generating Facility.

B. The Customer has the responsibility of disclosing to the Utility items specified herein on the Generating Facility and its operation. The Customer also has the responsibility of ensuring that:

1. The Generating Facility meets all minimum interconnection, safety and protection requirements outlined in these provisions and the Utility's Interconnection Manual;
2. The Generating Facility meets all applicable construction codes, safety codes, electric codes, laws, and requirements of government agencies having jurisdiction;
3. All the necessary protection equipment is installed and operated to protect the Generating Facility, Utility personnel, the public, and the Distribution System;
4. The Generating Facility design, installation, maintenance, and operation minimizes the likelihood of causing a malfunction or other disturbance, damaging, or otherwise impairing the Distribution System;

5. The Generating Facility does not adversely affect the quality of service to other consumers (but no more or less than the present standard of care observed by regular Utility/consumer connections);
6. The Generating Facility does not hamper efforts to restore a feeder to service (specifically when a clearance is required);
7. The Generating Facility is maintained in accordance with applicable manufacturers' maintenance schedule; and
8. The Utility is notified of any emergency or hazardous condition or occurrence with the Generating Facility, which could affect safe operation of the Distribution System.

C. The Customer is responsible for all Interconnection equipment required to be installed to interconnect the Generating Facility to the Distribution System. These may include connection, transformation, switching, protective relaying, metering and safety equipment, and any other requirements as outlined in this Article or other special items specified by the Utility. All such interconnection facilities are to be installed by the Customer at its sole expense.

D. The Customer, or Customer's agent, shall own and be responsible for designing, installing, operating and maintaining all Interconnection facilities required to be installed to interconnect the Generating Facility to the Distribution System. Such facilities shall be located on the Customer's premises and shall include all equipment as may be required to deliver power from the Generating Facility to the Distribution System at the Point of Interconnection. These include connection, transformation, switching, protective relaying, metering, Disconnect Switch, communication, and safety equipment, and any other requirements as outlined in this Article or other special items specified by the Utility. All such Interconnection facilities are to be installed at the sole expense of the Customer.

E. In the event that additional facilities are required to be installed on the Distribution System to accommodate the Customer's generation, the Utility shall install, replace, and maintain such facilities at the Customer's expense. A Facilities Study may be required to further identify the costs and scope associated with any proposed work and required facilities. The Utility shall provide notice to the Customer of intent to install required facilities following completion of studies. The Customer is not responsible for Utility upgrades unrelated to the Generating Facility installation.

F. Customers interconnecting a Generating Facility with the Utility system shall:

1. Sign an Interconnection Agreement, and all other applicable purchase, supply, and standby agreements; and
2. Comply with all applicable tariffs, rate schedules and Utility service requirements.

R14-2-2605. Utility Rights and Responsibilities

A. The Utility is obligated to interconnect Generating Facilities to the Distribution System, subject to the requirements set forth in this Article and in each Utility's Interconnection Manual.

B. The Utility has the right to expect prompt, reasonable and professional responses from the Customer during the Interconnection process.

C. Because the Utility is required to safeguard its system, other consumers, and the general public, the Utility has the right and responsibility to require that an interconnected Generating Facility:

1. Not present any hazards to Utility personnel, other consumers, or the public;
2. Minimize the possibility of damage to the Utility and other consumers' equipment;
3. Not adversely affect the quality of service to other consumers; and
4. Not hamper efforts to restore a feeder to service (specifically when a Clearance is required).

D. The Utility shall notify the Customer if there is reason to believe that the Customer's Generating Facility operation causes disruption or deterioration of service to other consumers served from the Distribution System or if such operation causes damage to the Distribution System.

E. The Utility has the responsibility to make its Interconnection Manual, standard Application forms and Interconnection Agreements readily available in print and online formats.

F. Following the receipt of the Customer's completed Application, the Utility may perform an engineering review to determine if an Interconnection Study is required. Before the Utility undertakes any studies or system upgrades that will be charged to the Customer, the Utility has the responsibility to provide a detailed cost estimate, outline of the proposed work, supporting data, and justification for the proposed work. The Interconnection Study determines whether any additional facilities will be required to be installed to the Distribution System. The Interconnection Study will also provide an estimated cost. The results of the Interconnection Study will be provided to the Customer.

G. The burden will be on a Utility to demonstrate good cause why a Generating Facility that satisfies the requirements of the Utility's Interconnection Manual should not be approved for interconnected operation.

H. If facility upgrades are needed to accommodate the Generating Facility, a Utility shall reduce the charge of the upgrade to the Customer by the amount of benefits, if any, to the grid that are readily quantifiable by the Utility. In addition, a Utility cannot reject an Application on the basis of Distribution System conditions that are already deficient, or charge a Customer for facility upgrades that are overdue or soon to be required to ensure compliance with Good Utility Practice, except that

applications can be rejected in instances where reliability or safety would be further compromised by a Distributed Generation installation. The burden will be on the Utility to demonstrate that reliability and safety will be jeopardized if the application is granted. A Utility shall not charge a Generating Facility Customer differently than any other consumer for facility upgrades in accordance with generally applicable Commission-approved tariffs if an application is rejected.

R14-2-2606. Easements and Rights-of-Way

Utility Right to Access Utility-Owned Facilities and Equipment. Where an easement or right-of-way does not exist, but is required by the Utility to accommodate the Interconnection, the Customer must provide suitable easements or rights-of-way, in the Utility's name, on the premises owned, leased, or otherwise controlled by the Customer. If the required easement or right of way is on another's property, the Customer must obtain and provide to the Utility a suitable easement or right-of-way, in the Utility's name, at the Customer's sole cost and in sufficient time to comply with the Interconnection Agreement requirements. The Utility shall use reasonable efforts to utilize existing easements to accommodate the Interconnection. The Utility shall use reasonable efforts to assist the Customer in securing necessary easements at the Customer's expense.

R14-2-2607. Insurance

A. The Customer is not required to provide general liability insurance coverage as a condition for Interconnection. Due to the risk of incurring damages, it is recommended that every Interconnection Customer protect itself with insurance or other suitable financial instrument sufficient to meet its construction, operating, and liability responsibilities. At no time shall the Utility require that the Customer negotiate any policy or renewal of any policy covering any liability through a particular insurance provider, agent, solicitor, or broker.

B. The inability of the Utility to require the Customer to provide general liability insurance coverage for operation of the Generating Facility is not a waiver of any rights the Utility may have to pursue remedies at law against the Customer to recover damages.

R14-2-2608. Non-Circumvention

A Utility and its affiliates shall not use knowledge of proposed Distributed Generation projects submitted to it for Interconnection or study to initiate competing proposals to the Customer that offer either discounted rates in return for not installing the Distributed Generation, or offer competing Distributed Generation projects. Customers are not precluded from sharing information in their possession regarding a potential Distributed Generation project with a Utility or its affiliates, or from using information

regarding a potential Distributed Generation project to negotiate a discounted rate or other mutually beneficial arrangement with a Utility or its affiliates. The Utility shall be permitted to inform the Customer of existing or pending (awaiting approval by the Commission) rate schedules that may economically benefit, economically disadvantage, or otherwise affect the Customer's project.

R14-2-2609. Designation of Contact Persons

A. Each Utility shall: designate a person or persons who will serve as the Utility's contact for all matters related to Distributed Generation Interconnection, identify to the Commission its Distributed Generation contact person or persons, and provide convenient access through its web site to the names, telephone numbers, mailing addresses and electronic mail addresses for its Distributed Generation contact person or persons.

B. Each Customer applying for Interconnection shall designate a contact person or persons, and provide to the Utility the contact's name, telephone number, mailing address, and electronic mail addresses.

R14-2-2610. Non-discrimination

All Applications for Interconnection and Parallel Operation of Distributed Generation shall be processed by the Utility in a non-discriminatory manner.

R14-2-2611. Application Submission Requirements

The Utility may require additional documentation to be submitted with the Application. Each Utility's Application form shall specify what additional documentation is required. Additional documentation may include an electrical one-line diagram, an electrical three-line diagram, AC and DC control schematics, plant location diagram, and site plan. Upon request, the Utility shall provide the Customer with sample diagrams that indicate the preferred level of detail and type of information required for a typical inverter-based system.

R14-2-2612. Minor Modifications

It is recognized that certain Applications may require minor modifications to the Generating Facility or the Application while they are being reviewed by the Utility. Such minor modifications to a pending Application shall not require that it be considered incomplete and treated as a new or separate Application.

R14-2-2613 Certification

A. In order to qualify as Certified Equipment for any Interconnection procedures, relevant equipment must comply with the applicable codes, guides, and standards as referenced in the Utility Interconnection Manual.

B. In order to qualify as Certified Equipment, Generating Facility equipment proposed for use separately or packaged with other equipment in an Interconnection system must comply with the following requirements:

1. It has been tested in accordance with industry standards for continuous utility interactive operation in compliance with appropriate codes and standards referenced by any NRTL recognized by the U. S. Occupational Safety and Health Administration to test and certify Interconnection equipment pursuant to the relevant codes and standards;
2. It has been labeled and is publicly listed by such NRTL at the time of the Interconnection Application; and
3. Such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with Customer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.

C. The Customer must verify that the intended use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.

D. Nothing herein shall preclude project Interconnection review and approval by the Utility or on-site commissioning testing prior to the Interconnection or follow-up production testing by the NRTL.

E. If the Certified Equipment includes only interface components (switchgear, inverters, or other interface devices), then a Customer must show, upon request from the Utility, that the Generating Facility is compatible with the interface components and is consistent with the testing and listing specified for this type of Interconnection equipment.

F. Certified Equipment does not include equipment provided by the Utility.

R14-2-2614. No Additional Requirements

If a Generating Facility complies with all applicable requirements, a Utility may not require the Customer to install additional controls, or perform or pay for additional tests, in order to obtain approval to interconnect except as mutually agreed to by the parties or required by the Commission. Additional equipment may be installed by the Utility at its own expense.

R14-2-2615 Disconnection from or Reconnection with the Distribution System

A. A Utility may disconnect a Generating Facility from the Distribution System under the following conditions:

1. Expiration or termination of Interconnection Agreement. The Interconnection Agreement specifies the effective term and termination rights of the Utility and the Customer. Upon expiration or termination of the Interconnection Agreement with a Customer, in accordance with the terms of the agreement, the Utility may disconnect a Generating Facility.
2. Non-compliance with technical Interconnection requirements. A Utility may disconnect a Generating Facility if the facility is not in compliance with the technical requirements found within the Utility's Interconnection Manual. Within five Business Days from the time the Customer notifies the Utility that the Generating Facility has been restored to compliance with the technical requirements, the Utility shall have an inspector verify such compliance. Upon such verification, the Utility in coordination with the Customer, shall reconnect the Generating Facility.
3. System emergency. A Utility may temporarily disconnect a Generating Facility without prior written notice in cases where continued Interconnection of the Generating Facility will endanger system operations, persons or property. During the forced outage of a Distribution System, the Utility may temporarily disconnect a Generating Facility to make immediate repairs on the Distribution System. When possible, the Utility shall provide the Customer with reasonable notice. The Utility shall reconnect the Generating Facility as quickly as practical, and after the Utility's determination that the Generating Facility's operations have been mitigated.
4. Routine maintenance, repairs, and modifications. A Utility may disconnect a Generating Facility from the Distribution System with reasonable prior notice of a service interruption for routine maintenance, repairs, and system modifications. The Utility shall allow reconnection of the Generating Facility as quickly as practical following any such service interruption.
5. Absence of executed Interconnection Agreement. In order to interconnect a Generating Facility to a Distribution System, the Customer and the Utility must execute an Interconnection Agreement. The Utility may refuse to connect or may disconnect the Generating Facility if an executed Interconnection Agreement is not in effect.

B. The Parties shall cooperate with each other to restore the Generating Facility and the Distribution System to their normal operating state as soon as practical.

C. Temporary disconnection by Customer. The Customer may temporarily disconnect its Generating Facility from the Distribution System at any time. Such temporary disconnection shall not be a termination of the Interconnection Agreement unless specified as such.

D. Agreement survival rights. The Interconnection Agreement between the Utility and the Customer shall continue in effect after disconnection or termination of electric service to the extent necessary to allow or require either party to fulfill rights or obligations that arose under the agreement notwithstanding the items in Section E(4) below.

E. Duration and Termination of the Interconnection Agreement. The Interconnection Agreement shall become effective on the effective date specified in the agreement and shall remain in effect thereafter unless and until:

1. It is terminated by mutual agreement of the parties;
2. It is replaced by another Interconnection Agreement with mutual consent of the parties;
3. It is terminated by either party pursuant to a breach or default of the agreement; or
4. The Customer terminates its Utility electric service and/or vacates or abandons the property on which the Generating Facility is located, or terminates or abandons the Generating Facility, without mutual agreement of the parties.

F. Upon termination of the Interconnection Agreement, the Customer shall be responsible for ensuring that the electrical conductors connecting the Generating Facility to the Distribution System are immediately lifted and permanently removed, so as to preclude any possibility of interconnected operation in the future. The Utility reserves the right to inspect the Generating Facility to verify that it is permanently disconnected.

R14-2-2616. Summary of Interconnection Levels and Tracks

A. Level 1 Super Fast Track. Certified inverter-based Generating Facilities that have a power rating of 20 kW or less, are interconnected to a non-network distribution circuit and meets screens (A), (E), and (F) in R14-2-2617. Refer to R14-2-2618 for details.

B. Level 2 Fast Track. Generating Facilities that have a power rating greater than 20 kW but less than 1 MW, are interconnected to a non-network distribution circuit, and meet screens (A) through (I) in R14-2-2617. Refer to R14-2-2619 for details.

C. Level 3 Study Track. Generating Facilities that have a power rating of 1 MW or greater or do not meet the screening requirements for Level 1 Super Fast Track, Level 2 Fast Track, or Supplemental Review. Refer to R14-2-2620 for details.

R14-2-2617. Screens

A. For Interconnection of a proposed Generating Facility to a distribution circuit, the aggregated generation, including the proposed Generating Facility, on the circuit will not exceed 15% of the total circuit annual peak load as most recently measured at the substation or on the line section.

B. The proposed Generating Facility, will not contribute more than 10% to the distribution circuit's maximum fault current at any point on the Distribution System, including normal contingency conditions that may occur due to reconfiguration of the feeder or the distribution substation.

C. The proposed Generating Facility, in aggregate with other generation on the distribution circuit, will not cause any distribution protective devices and equipment (including but not limited to substation breakers, fuse cutouts, and line reclosers), or consumer equipment on the system, to exceed 90% of the short circuit interrupting capability; nor is the Interconnection proposed for a circuit that already exceeds 90% of the short circuit interrupting capability.

D. The proposed Generating Facility is interconnected to the Utility as shown in the table below:

Primary distribution line configuration	Interconnection to primary distribution line
Three-phase, three wire	If a three-phase or single-phase Generating Facility, Interconnection must be phase-to-phase
Three-phase, four wire	If a three-phase (effectively grounded) or single-phase Generating Facility, Interconnection must be line-to-neutral

E. If the proposed Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Generating Facility, cannot exceed 20 kW.

F. If the proposed Generating Facility is single-phase and is to be interconnected on a transformer center tap neutral of a 240 volt service, its addition will not create an imbalance between the two sides of the 240 volt service of more than 20% of nameplate rating of the service transformer.

G. The proposed Generating Facility, in aggregate with other generation interconnected to the distribution low voltage side of the substation transformer feeding the distribution circuit where the Generating Facility proposes to interconnect, will not exceed 10 MW in an area where there are known or posted transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four transmission voltage level busses from the Point of Interconnection).

H. The proposed Generating Facility's Point of Interconnection will not be on a transmission line.

I. The proposed Generating Facility cannot exceed the capacity of the Customer's existing electrical service unless there is a simultaneous request for an upgrade to the Customer's electrical service or if the Generating Facility is configured to never inject power onto the feeder that exceeds the capacity of the electrical service.

R14-2-2618. Level 1 Super Fast Track

A. The Level 1 Super Fast Track Application process is available to Customers interconnecting an inverter-based Generating Facility of 20 kW or less to the Distribution System. In order to qualify for Level 1 Super Fast Track, the Generating Facility must meet screens (A), (E), and (F) in R14-2-2617. The inverters must be UL 1741 listed, and certified to meet the shutdown protective functions (under/over voltage, under/over frequency and anti-islanding) specified in IEEE 1547 or equivalent standard. The Generating Facility must also meet all applicable codes and standards, as well as comply with the Utility Interconnection and contractual requirements.

B. Nothing in this process precludes the Customer and Utility from mutually agreeing to different time-frames specified in A.R.S. § 44-1764 or other procedures for the approval of interconnected operation of a Generating Facility, so long as the project progresses as agreed to by the parties.

C. The Level 1 Super Fast Track steps are as follows:

1. Customer Submits Application. The Customer completes the Application and submits it to the Utility along with all required supplemental information and documents, which shall be noted on the Application. The Customer submits a pre-executed Interconnection Agreement along with the Application; if required by the Utility. No initial application fee or processing fee will be charged.
2. Application is Received and is Complete or Incomplete. The Utility notifies the Customer within seven calendar days of receipt of the Application as to whether it is complete or incomplete.
   a. When the Utility notifies the Customer that an Application is incomplete, the Utility shall specify what additional information or documentation is necessary to complete the Application.
   b. The Customer has 30 calendar days after receipt of such notification to withdraw the Application, or submit the required information ordocumentation,the Application may be considered withdrawn.
3. Utility Reviews Application. Within 20 calendar days following the receipt of a complete Application, the Utility shall review the Interconnection Application and notify the Customer of one of the following determinations:

a. The Generating Facility design appears to meet all Interconnection requirements and the Application is approved as submitted.

b. The Generating Facility design has failed to meet one or more of the Utility's Interconnection requirements, and the Application may not be accepted as submitted. The Utility shall provide an explanation of the reasons for the denial (in writing, unless otherwise requested by the Customer), and specify what additional information or modifications to the Generating Facility or Distribution System are required in order to obtain approval of the proposed design.

c. If the Application is not accepted as submitted, the Customer shall notify the Utility within 30 calendar days whether or not it wishes to proceed with the Interconnection.

i. If the Customer does not wish to proceed with the project Interconnection, or the Utility is not notified within the specified time-frame, the Application may be considered withdrawn.

ii. If the Customer wishes to proceed with the Interconnection, then the Utility will perform a Supplemental Review in accordance with R14-2-2621 within 30 calendar days.

iii. If the Generating Facility meets the requirements outlined in the Supplemental Review section, then the Application is approved.

iv. If the Generating Facility fails to meet one or more of the requirements outlined in the Supplemental Review section then the Customer can choose to withdraw the Application or may request processing under Level 3 Study Track.

4. Interconnection Agreement. If the Generating Facility meets all of the applicable interconnection requirements and the Application is approved, then:

a. Within seven calendar days after the notice of Application approval, the Utility sends to the Customer the appropriate Interconnection Agreement for review and signature. (This step may be omitted if the Utility has received a pre-executed Interconnection Agreement).

b. The Customer will submit to the Utility a copy of the final electrical clearance for the Generating facility issued by the authority having jurisdiction, if required; and

c. The Customer will submit all necessary supplemental documents as specified by the Utility.

5. Inspection and Testing. The Utility shall perform the site inspection and verify that the Generating Facility is in compliance with all applicable Interconnection and code requirements. The Utility shall perfrom the site inspection within 14 calendar days of the request for a site inspection by the Customer. At a minimum, the Utility shall verify the following:

a. All Generating Facility equipment is properly labeled;

b. The Generating Facility system layout is in accordance with the plant location and site plans submitted to the Utility;

c. Inverter nameplate ratings are consistent with the information submitted to the Utility;

d. The Utility has unrestricted 24-hour access to the Utility-owned production meter and Disconnect Switch, and the Disconnect Switch meets all applicable requirements; and

e. The inverter shuts down as required upon simulated loss of Utility voltage.f. The Generating Facility is wired, as best as can be determined, in accordance with the electrical diagrams submitted to the Utility.

6. The Utility will install, at the Utility's expense, appropriate metering equipment if required.

7. Notification. Within 14 calendar days of the completion of the site inspection and the receipt of all final applicable signed Interconnection documents, the Utility shall determine whether or not the Generating Facility meets all applicable requirements, and notify the Customer that:

   a. The Generating Facility is approved for Parallel Operation with the Distribution System per the agreed terms and conditions; or

   b. The Generating Facility has failed the inspection and does not meet one or more of the applicable requirements, and the Generating Facility is not approved for Parallel Operation. The Utility must provide the reasons (in writing, unless otherwise requested by the Customer) for not approving Parallel Operation. Furthermore, the Utility has the right to take any reasonable steps (including locking open the Disconnect Switch) to prevent the Generating Facility from Parallel Operation. Operation of a Generating Facility in parallel without Utility approval may result in immediate termination of electric service to the Customer.

8. Corrections. In the event that the Generating Facility does not pass the initial Utility site inspection, the Customer must correct any outstanding issues and notify the Utility within 30 calendar days of the initial site inspection that all corrections have been made. If the Utility is not notified within that timeframe, the Application may be deemed withdrawn unless alternative arrangements have been made by the Customer with the Utility. The Utility must re-inspect the Generating Facility within 14 calendar days of the Customer notice of correction.The Utility may charge a fee for each re-inspection, if a tariff containing such a fee is approved by the Commission.

9. Interconnection of Generation Facility. The installation must be interconnected within 180 calendar days of Application approval unless otherwise mutually agreed to by the Utility and the Customer.

R14-2-2619. Level 2 Fast Track

A. Level 2 Fast Track Application process is available to Customers interconnecting a Generating Facility that is less than 1 MW to the Distribution System, excluding inverter-based Generating Facilities less than 20 kW which are processed in accordance with R14-2-2618. In order to qualify for Level 2 Fast Track, the Generating Facility must meet screens (A) through (I) in R14-2-2617. If the Generating Facility is inverter-based, the inverter must also meet currently applicable codes and standards, including UL 1741 listed, and must be certified to meet the shutdown protective functions (under/over voltage, under/over frequency, and anti-Islanding) specified in IEEE 1547 or an equivalent standard. The Generating Facility must also meet all applicable codes and standards, as well as comply with the Utility Interconnection and contractual requirements.

B. Nothing in this process precludes the Customer and Utility from mutually agreeing to different time-frames specified in A.R.S. § 44-1764 or other procedures for the approval of interconnected operation of a Generating Facility, so long as the project progresses as agreed to by the parties.

C. The Level 2 Fast Track steps are as follows:

1. Customer Submits Application. The Customer shall complete the Application and submit it to the Utility along with all required supplemental information which shall be noted on the Application form. The Customer shall also submit a signed Interconnection Agreement, operating Agreement (if required), and a construction agreement. A Utility may not charge an application fee unless a tariff containing such a fee is approved by the Commission.
2. Application is Received and is Complete or Incomplete. The Utility notifies the Customer within seven calendar days of receipt of the Application as to whether it is complete or incomplete.
   a. When the Utility notifies the Customer that an Application is incomplete, the Utility will specify what additional information and/or documentation is necessary to complete the Application.
   b. The Customer has 30 calendar days after receipt of such notification to withdraw Application, or submit the required information documentation, or the Application may be considered withdrawn.
3. Utility Reviews Application. Within 30 calendar days following the receipt of a complete Application, the Utility shall review the Interconnection Application and notify the Customer of one of the following determinations:

a. The Generating Facility design appears to meet all Interconnection requirements and the Application is approved as submitted.

b. The Generating Facility design has failed to meet one or more of the Utility's Interconnection requirements, and the Application is denied. The Utility shall provide an explanation of the reasons for the denial (in writing, unless otherwise requested by the Customer), and specify what additional information or modifications to the Generating Facility or Distribution System are required in order to obtain approval of the design.

c. If the Application is denied, the Customer has 30 calendar days to notify the Utility whether or not it wishes to proceed with the project, and if the Customer wishes to proceed with the Interconnection, the Customer will select one of the following next steps within those 30 calendar days:

1. Utility performs a Supplemental Review in accordance with R14-2-2621 within 30 calendar days after the Customer notifies the Utility.

   a. If the Generating Facility meets the requirements outlined in the Supplemental Review section, then the Application is approved.

   b. If the Generating Facility fails to meet one or more of the requirements outlined in the Supplemental Review section, then the Customer can choose to withdraw the Application or may request processing under Level 3 Study Track.

2. Customer submits a revised request and Application is entered back into the Level 2 Application process within 30 calendar days after the Customer notifies the Utility.

3. Customer requests that Utility process the Application under Level 3 Study Track within 14 calendar days after the Customer notifies the Utility.

4. Interconnection Agreement. If the Generating Facility meets all of the applicable Interconnection requirements and the Application is approved, then:

a. Within seven calendar days after the notice of Application approval, the Utility sends to the Customer the appropriate Interconnection Agreement for review and signature. (This step may be omitted if the Utility has received a pre-executed Interconnection Agreement).

b. The Customer will submit to the Utility a copy of the final electrical clearance for the Generating Facility issued by the authority having jurisdiction, if required; and

c. The Customer will submit all necessary supplemental documents as specified by the Utility.

5. Inspection and Testing. The Utility shall perform the site inspection and verify that the Generating Facility is in compliance with all applicable Interconnection and code requirements. A Utility may not charge for the initial site inspection unless a tariff containing such a fee is approved by the Commission. At a minimum, the Utility shall verify the following:
    a. All Generating Facility equipment is properly labeled;
    b. The Generating Facility system layout is in accordance with the plant location and site plans submitted to the Utility;
    c. Inverter nameplate ratings are consistent with the information submitted to the Utility;
    d. The Utility has unrestricted 24-hour access to the Utility-owned production meter and Disconnect Switch, and the Disconnect Switch meets all applicable requirements; and
    e. The inverter shuts down as required upon simulated loss of Utility Voltage.
    f. The Utility shall communicate additional testing and startup requirements to the Customer at the Utility's discretion.
    g. The Generating Facility is wired, as best as can be determined, in accordance with the electrical diagrams submitted to the Utility.
6. The Utility will install, at the Utility's expense, appropriate metering equipment if required.
7. Notification. Within seven calendar days of the completion of the site inspection and the receipt of all final applicable signed Interconnection documents, the Utility shall determine whether or not the Generating Facility meets all applicable requirements, and notify the Customer that:
    a. The Generating Facility is approved for Parallel Operation with the Distribution System per the agreed terms and conditions; or
    b. The Generating Facility has failed the inspection and does not meet one or more of the applicable requirements, and the Generating Facility is not approved for Parallel Operation. The Utility must provide the reasons (in writing unless otherwise requested by the Customer) for not approving Parallel Operation. Furthermore, the Utility has the right to take any reasonable steps (including locking open the Disconnect Switch) to prevent the Generating Facility from Parallel Operation. Operation of a Generating Facility in parallel without Utility approval may result in immediate termination of electric service to the Customer.
8. Corrections. In the event that the Generating Facility does not pass the initial Utility site inspection, the Customer must correct any outstanding issues and notify the Utility within 30 calendar days of the initial site inspection that all corrections have been made. If the Utility is not notified within

that timeframe, the Application may be deemed withdrawn unless alternative arrangements have been made by the Customer with the Utility. The Utility must re-inspect the Generating Facility within seven calendar days of the Customer notice of correction. The Utility may charge a fee for each re-inspection, if a tariff containing such a fee is approved by the Commission.

9. Interconnection of Generation Facility. The installation must be interconnected within 180 calendar days of Application approval unless otherwise mutually agreed to by the Utility and the Customer.

D. Customer Time-frames. The Utility time-frames contained herein do not include the time for the Customer to execute all agreements or submit all needed documentation. If at any point in the Level 2 Fast Track process, the Customer does not submit requested materials necessary to process the Application, or submit applicable executable agreements within 30 calendar days, or request an extension, the Application may be considered withdrawn.

E. Fees for Level 2 Fast Track Additional Review. A Utility may not charge a fee for an additional review, unless a tariff containing the hourly rate for additional review is approved by the Commission. The Utility shall provide a non-binding good faith estimate of the fee for such additional review. The Customer shall submit a deposit for the estimated fee before the additional review will be initiated. In addition, the Customer shall have the responsibility for any costs of Utility facilities and equipment modifications necessary to accommodate the Customer's Interconnection.

R14-2-2620. Level 3 Study Track

A. Level 3 Study Track is available to Customers interconnecting a Generating Facility that is 1 MW or greater to the Distribution System and/or for all Generating Facilities that do not meet the screening requirements for Level 1 Super Fast Track, Level 2 Fast Track, or Supplemental Review. If the Generating Facility is inverter-based, the inverter must meet currently applicable codes and standards, including UL 1741 listed, and must be certified to meet the shutdown protective functions (under/over voltage, under/over frequency, and anti-Islanding) specified in IEEE 1547 or an equivalent standard. The Generating Facility must also meet all applicable codes and standards, as well as comply with the Utility's Interconnection Manual and Interconnection Agreement.

B. Nothing in these procedures shall preclude the Customer and Utility from mutually agreeing to different time-frames specified in A.R.S. § 44-1764 or other procedures for the approval of interconnected operation of a Generating Facility, so long as the project progresses as agreed to by the parties.

C. The Level 3 Study Track steps are as follows:

1. Prior to Submitting Application. The Customer may contact the Utility at the conceptual stages of the design to discuss the proposed design, installation, and operation. Upon the Customer's request, the Utility shall meet with the Customer prior to submission of an Application.
2. Customer Submits Application. The Customer shall complete the Application and submit it to the Utility along with all required supplemental information which shall be noted on the Application form. A Utility may not charge an application fee, unless a tariff containing such a fee is approved by the Commission.
3. Application is Received and is Complete or Incomplete. The Utility notifies the Customer within 14 calendar days of receipt of the Application, or transfer from Level 1 Super Fast Track, or Level 2 Fast Track, or Supplemental Review, as to whether it is complete or incomplete.
   a. When the Utility notifies the Customer that an Application is incomplete, the Utility will specify what additional information and/or documentation is necessary to complete the Application.
   b. The Customer has 30 calendar days after receipt of such notification to withdraw the Application, or submit the missing information or documentation (or request an extension), or the Application may be considered withdrawn.
   c. After the Customer submits any missing information, the Utility has 14 calendar days to determine if the Application is complete or incomplete and notify the Customer.
4. Utility Reviews Application. Within 30 calendar days following the receipt of a complete Application, the Utility shall review the Interconnection Application and notify the Customer of one of the following determinations:

   a. The Generating Facility design appears to meet all of the applicable Interconnection requirements, and no further studies, special protective requirements, or system modifications are required. The Utility shall prepare an Interconnection Agreement and forward it to the Customer for review and signature in accordance with Step (10) below; or

   b. The Generating Facility cannot be interconnected without further information, data, engineering studies, or modifications to the Distribution System or Generating Facility. In this case, the Interconnection proceeds according to the following meeting and study process, as deemed necessary by the Utility. All itemized costs and timelines for the studies are to be disclosed

and agreed upon by the Utility and Customer prior to the start of each one. In addition, all studies are to be made available to the Customer directly after their completion.

5. Scoping Meeting. This meeting is an initial review meeting between the Utility and the Customer, where the Customer provides a general overview of the proposed Generating Facility design and the Utility provides general information on system conditions at the proposed Point of Interconnection. This meeting also allows the Utility and the Customer to discuss which studies are needed. The Utility and the Customer will bring to the meeting personnel, including system engineers and other resources as may be reasonably required to accomplish the purpose of the meeting. This meeting shall be held within 14 calendar days after an Application is deemed complete unless other mutual agreements are made.
6. Acknowledgement Letter. The Utility will provide an acknowledgement letter following the Scoping Meeting upon request from the Customer. The letter will describe the project scope and include a good faith cost estimate by the Utility. If requested, the letter will be sent out within 14 calendar days following the Scoping Meeting.
7. Feasibility Study. If requested by the Customer, the Utility shall undertake a Feasibility Study. The Utility shall provide the Customer, within 14 calendar days after the Scoping Meeting, a Feasibility Study agreement including an outline of the scope of the study and a non-binding, good faith, detailed estimate of the materials and labor costs to perform the study. The Utility shall conduct the Feasibility Study after the Customer executes the Feasibility Study agreement, provides all requested Customer information necessary to complete the Feasibility Study, and pays the estimated costs.
    a. The Feasibility Study shall be completed within 21 calendar days, unless other mutually agreeable terms are made.
    b. The Feasibility Study will review short circuit currents including contribution from the proposed generator as well as coordination of and potential overloading of distribution circuit protection devices. This study principally benefits the Customer by providing initial details and ideas on the complexity and likely costs to interconnect prior to commitment of costly engineering review. The Feasibility Study may also be used to focus or eliminate some or all of the more intensive System Impact study.
8. System Impact Study. If deemed necessary by either party, the Utility shall undertake a System Impact Study. The Utility shall provide the Customer, within 20 calendar days after completing

the previous study or meeting, a System Impact Study agreement including an outline of the scope of the study and a non-binding, good faith, detailed estimate of the materials and labor costs to perform the study. The Utility shall conduct the System Impact Study after the Customer executes the System Impact Study agreement, provides all requested Customer information necessary to complete the System Impact Study, and pays any required deposit of the estimated costs.

a. The System Impact Study will be completed within 30 calendar days, unless other mutually agreeable terms are made.

b. The System Impact Study reveals all areas where the Distribution System would need to be upgraded to allow the Generating Facility to be built and interconnected as designed. It may include discussions with the Customer about potential alterations to generator design, including downsizing to limit grid impacts.

c. If the Utility determines, in accordance with Good Utility Practice, that the Distribution System modifications required to accommodate the proposed Interconnection are not substantial, the System Impact Study shall identify the scope and detailed cost of the modifications.

d. If the Utility determines, in accordance with Good Utility Practice, that the system modifications to the Distribution System are substantial, a Facilities Study shall be performed.

e. Each Utility shall include in its Interconnection Manual a description of the various elements of a System Impact Study it would typically undertake pursuant to this Section including:

   i. Load Flow Study;

   ii. Short-Circuit Study;

   iii. Circuit Protection and Coordination Study;

   iv. Impact on System Operation;

   v. Stability Study (and the conditions that would justify including this element in the Impact Study); and

   vi. Voltage Collapse Study (and the conditions that would justify including this element in the Impact Study).

9. Facilities Study. The Utility shall undertake a Facilities Study if needed based on the outcome of the System Impact Study. The Utility shall provide the Customer, within seven calendar days after completing the previous study or meeting, a Facilities Study agreement including an outline of the scope of the study and a non-binding, good faith, detailed estimate of the materials and labor cost to perform the study. The Utility shall conduct the Facilities Study after the Customer executes the

Facilities Study agreement, provides all requested Customer information necessary to complete the study, and pays the estimated costs.

a. The Facilities Study shall be completed within 30 calendar days, unless other mutually agreeable terms are made.

b. The Facilities Study delineates the detailed costs of construction and milestones. Construction may include new circuit breakers, relocation of reclosers, new Utility grid extensions, reconductoring lines, new transformers, protection requirements and interaction.

10. Interconnection Agreement. If the Generating Facility meets all of the applicable Interconnection requirements, all items identified in any meeting or study have been resolved and agreed to (if applicable), and the Utility has received the final design drawings, then:

a. The Utility shall send to the Customer within seven calendar days an executable Interconnection Agreement, which shall include as an exhibit the cost for any required Distribution System modifications.

b. The Customer shall review, sign, and return the Interconnection Agreement and any balance due for Interconnection studies or required deposit for facilities.

c. The Customer shall then complete installation of the Generating Facility and the Utility shall complete any Distribution System modifications, according to the milestones set forth in the Interconnection Agreement. The Utility shall employ best reasonable efforts to complete such system upgrades in the shortest time practical.

11. Inspection and Testing. The Customer shall contact the Utility to schedule the Utility site inspection and witness of the testing of the protective devices. The Utility site inspection and witness of the testing of the protective devices shall occur within 14 calendar days of notice from the Customer. The Utility may schedule metering replacement, if necessary, and labeling of Utility equipment to occur at the same time.

a. The Utility shall perform the site inspection and verify that the Generating Facility is in compliance with all applicable Interconnection and code requirements. At a minimum, the Utility shall verify the following:

i. An electrical permit and/or clearance has been issued by the authority having jurisdiction, if required;

ii. All Generating Facility equipment is properly labeled;

iii. Generating Facility system layout is in accordance with the plant location and site plans submitted to the Utility;

iv. Generator nameplate ratings are consistent with the information submitted to the Utility;

v. The Utility has unrestricted access to the Disconnect Switch (if required), and the switch meets all requirements; and

vi. The Generating Facility is wired, as best can be determined, in accordance with the electrical diagrams submitted to the Utility.

b. The Utility shall witness the required protective relay calibration and functional tests. The Utility may accept a certified test report in lieu of witnessing the tests.

c. The Utility shall:

i. Install all appropriate metering, if required;

ii. Label all Utility equipment; and

iii. Ensure that Generating Facility is properly incorporated onto Utility operating maps and identified as a Backfeed source.

d. The Utility may fail any Generating Facility that does not meet the applicable Interconnection requirements, is not installed in accordance with the documentation submitted to the Utility, or has any safety or protection violation.

12. Notification. Immediately following completion of the site inspection (and upon receipt of all final applicable signed Interconnection documents) the Utility shall determine whether or not the Generating Facility meets all applicable requirements. The Utility shall provide the Customer oral notification within 24 hours and written notification within seven calendar days that:

a. The Generating Facility is approved for Parallel Operation with the Distribution System per the Interconnection Agreement; or

b. The Generating Facility has failed to meet one or more of the applicable requirements or a safety violation has been identified, and the Generating Facility is not approved for Parallel Operation. The Utility shall provide the reasons (in writing unless otherwise requested by the Customer) for not approving Parallel Operation. The Utility may disconnect and lock out the Generating Facility to prevent the Generating Facility from Parallel Operation, and the Customer must reschedule the site inspection with the Utility. Operation of a Generating Facility in parallel without written approval from the Utility may result in immediate termination of electric service to the Customer.

13. Correction (if necessary). In the event that the Generating Facility does not pass the initial Utility site inspection:

a. The Customer may schedule a re-inspection after correcting the deficiencies identified by the Utility. The Utility shall re-inspect within 14 calendar days notice from the Customer to verify that the deficiencies have been remedied. Following any site re-inspection where the Utility approves Parallel Operation of the Generation Facility, the Utility shall provide to the Customer such oral notification within 24 hours and such written notification within seven calendar days that the Generation Facility is approved for Parallel Operation.

b. If updated documentation is required to reflect "as-built" conditions, the Customer must submit the updated documentation to the Utility for review and approval within 14 calendar days following the site inspection. The Utility may not charge a fee unless a tariff containing such a fee is approved by the Commission. The Utility shall process and mail an amendment to the Interconnection Agreement within seven calendar days after receipt and acceptance of the updated documentation for Customer review and signature.

D. Customer Time-frames. The Utility time-frames contained herein do not include the time for the Customer to execute all agreements or submit all needed documentation. If at any point in the Level 3 Study Track process, the Customer does not submit requested materials necessary to process the Application or applicable executable agreements within 30 calendar days, or request an extension, the Application may be considered withdrawn.

E. Fees for Level 3 Study Track Interconnection. A Utility may not charge a fee for an engineering review, unless a tariff containing the hourly rate for engineering review is approved by the Commission. The Utility shall provide a non-binding good faith estimate of the fee for such engineering review. The Customer must submit a deposit for the estimated fee before the engineering review will be initiated. In addition, costs for Utility facilities and/or equipment modifications necessary to accommodate the Generating Facility's Interconnection will be the responsibility of the Customer. The Customer may not be charged for the review of a certified generator's protection equipment. The Utility may not charge a fee for an initial inspection or for a re-inspection, unless a tariff containing such a fee is approved by the Commission.

R14-2-2621. Supplemental Review

A. If supplemental review is required, the Utility shall provide a good faith estimate of the costs of the review and a written agreement setting forth the terms of the supplemental review within 20 calendar

days of the determination that a Supplemental Review is required. The Customer shall sign the written agreement and submit a deposit for the estimated costs of the supplemental review within 14 calendar days of receipt of the good faith estimate and written agreement. If the written agreement and deposit have not been received by the Utility within that timeframe, the Interconnection request shall continue to be evaluated under the Level 3 Study Track unless it is withdrawn by the Customer.

B. The Customer may specify the order in which the Utility will complete the screens in section D below.

C. The Customer shall be responsible for the Utility's actual costs for conducting the supplemental review. The Customer must pay any review costs that exceed the deposit within 30 calendar days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the Utility will return such excess without interest within 30 calendar days of the invoice date.

D. Within 20 calendar days following receipt of the deposit for a supplemental review, the Utility shall: (1) perform a supplemental review using the screens set forth below; (2) notify the Customer in writing of the results; and (3) include with the notification copies of the analysis and data underlying the Utility's determinations under the screens. Unless the Customer provided instructions for how to respond to the failure of any of the supplemental review screens below at the time the Customer accepted the offer of supplemental review, the Utility shall notify the Customer following the failure of any of the screens, If the Utility is unable to perform the screen in section D.1 below, within two calendar days of making such determination the Utility will obtain the Customer's permission to: (1) continue evaluating the Interconnection under this section D; (2) terminate the supplemental review and continue evaluating the Generating Facility under Level 3 Study Track; or (3) terminate the supplemental review upon withdrawal of the Interconnection request by the Customer.

1. Minimum Load Screen: Where 12 months of line section minimum load data (including onsite load but not station service load served by the Generating Facility) are available, can be calculated, can be estimated from existing data, or can be determined from a power flow model, the aggregate Generating Facility capacity on the line section is less than 100% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the Generating Facility. If minimum load data is not available, or cannot be calculated, estimated or determined, the Utility shall include the reason(s) that it is unable to calculate, estimate or determine minimum load in its supplemental review results notification under section D.
    a. The type of generation used by the Generating Facility will be taken into account when calculating, estimating, or determining circuit or line section minimum load relevant for the

application of screen D.1. Solar photovoltaic (PV) generation systems with no battery storage shall use daytime minimum load (i.e. 10 a.m. to 4 p.m. for fixed panel systems and 8 a.m. to 6 p.m. for PV systems utilizing tracking systems), while all other generation shall use absolute minimum load.

b. When this screen is being applied to a Generating Facility that serves some station service load, only the net injection into the Utility's electric system will be considered as part of the aggregate generation.

c. Utility shall not consider, as part of the aggregate generation for purposes of this screen, generating facility capacity known to be already reflected in the minimum load data.

2. Voltage and Power Quality Screen: In aggregate with existing generation on the line section: (1) the voltage regulation on the line section will be maintained in compliance with relevant requirements under all system conditions; (2) the voltage fluctuation will be within acceptable limits as defined by IEEE Standard 1453, or utility practice similar to IEEE Standard 1453; and (3) the harmonic levels will meet IEEE Standard 519 limits.

3. Safety and Reliability Screen: The location of the Generating Facility and the aggregate generation capacity on the line section will not create impacts to safety or reliability that cannot be adequately addressed without application of the Interconnection Study process. The Utility shall give due consideration to the following and other factors in determining potential impacts to safety and reliability in applying this screen:

   a. Whether the line section has significant minimum loading levels dominated by a small number of customers (e.g., several large commercial customers);

   b. Whether the loading along the line section is uniform or even;

   c. Whether the Generating Facility is located in close proximity to the substation (i.e., less than 2.5 electrical circuit miles), and whether the line section from the substation to the Point of Interconnection is a main feeder line section rated for normal and emergency ampacity;

   d. Whether the Generating Facility incorporates a time delay function to prevent reconnection of the generator to the system until system voltage and frequency are within normal limits for a prescribed time;

   e. Whether operational flexibility is reduced by the Generating Facility, such that transfer of the line section(s) of the Generating Facility to a neighboring distribution circuit/substation may trigger overloads or voltage issues;

f. Whether the Generating Facility employs equipment or systems certified by a recognized standards organization to address technical issues such as, but not limited to, Islanding, reverse power flow, or voltage quality.

E. If the Interconnection passes the supplemental screens in D.1, D.2, and D.3 above, the Interconnection request will be approved and the Utility shall provide the Customer with an executable Interconnection Agreement within the timeframes established in sections E.1 and E.2 below. If the Interconnection fails any of the supplemental review screens and the Customer does not withdraw its Interconnection request, it will continue to be evaluated under the Level 3 Study Track consistent with section E.3 below.

1. If the Interconnection passes the supplemental screens in sections D.1, D.2, and D.3 above and does not require construction of facilities by the Utility on its own system, the Interconnection Agreement shall be provided within 14 calendar days after the notification of the supplemental review results.
2. If Interconnection facilities or minor modifications to the Utility's system are required for the Interconnection to pass the supplemental screens in sections D.1, D.2, and D.3 above, and the Customer agrees to pay for the modifications to the Utility's electric system, the Interconnection Agreement, along with a non-binding good faith estimate for the Interconnection facilities and/or minor modifications, shall be provided to the Customer within 14 calendar days after receiving written notification of the supplemental review results.
3. If the Interconnection would require more than interconnection facilities or minor modifications to the Utility's system to pass the supplemental screens in sections D.1, D.2, and D.3 above, the Utility shall notify the Customer, at the same time it notifies the Customer with the supplemental review results, that the Interconnection request shall be evaluated under the Level 3 Study Track unless the Customer withdraws its Generating Facility.

R14-2-2622. Interconnection to a Secondary Spot Network System

A. The requirements for interconnecting a Generating Facility to Secondary Spot Network System are different than those for Interconnection to radial distribution systems. In the Secondary Spot Network System, there are technical requirements to be considered particularly with the design and operational aspects of network protectors that are not required on radial systems.

B. The process for interconnecting to a Secondary Spot Network System will be determined by the Utility.

C. For interconnection of a proposed Generation Facility to the load side of spot network protectors, the proposed Generation Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5% of the spot network's maximum load or 50 kW. Under no condition shall the interconnection of a Generating Facility result in a backfeed of a Spot Network or cause unnecessary operation of any Spot Network protectors.

R14-2-2623. Disconnect Switch Requirements

Customer shall install and maintain a visual-open, manually operated, load break Disconnect Switch that will completely open and isolate all ungrounded conductors of Customer's Generating Facility from the Utility's Distribution System. For multi-phase systems, the Disconnect Switch shall be gang-operated. Additional requirements shall be specified by the serving Utility's Interconnection Manual.

R14-2-2624. Energy Storage System General Requirements

A. All energy storage systems shall meet all applicable codes and standards in accordance with Section R14-2-2613 of these Interconnection Rules.

B. These Rules apply to energy storage systems owned by a Customer or third party.

C. Energy storage systems owned, operated and maintained by the Utility shall be installed in accordance with the Utilities Interconnection Manual and are exempt from these Rules,

D. Stand alone energy storage systems connecting behind a Customer's meter for the purposes of peak shaving and/or back up Customer load which are designed to operate as Non-Exporting Systems are not subject to these rules. After Customer installation of said system, the Customer shall submit relevant information about the energy storage system as specified in the Utility's Interconnection Manual to the Utility.

E. Energy storage systems designed to operate as Exporting Systems or energy storage systems working in conjunction with other generator(s) will follow the Application process outlined in Sections R14-2-2618, R14-2-2619, R14-2-2620, and R14-2-2621.

F. Energy storage systems connecting directly to the Utility's Distribution System and not installed behind a Customer's meter for the purpose of providing ancillary services and/or capacity support will be subject to the Utility's Interconnection Study and Application process irrespective of AC Output rating and time frames for review.

G. At a minimum, the following grid support features are required at the Point of Interconnection for energy storage systems connecting directly to the Utility's Distribution System unless otherwise agreed to by the serving Utility:

1. Capability to operate in Power Factor Control ("PFC") mode at a fixed power factor within the range of plus or minus 0.95 pf at any power output level up to the maximum rated kW output of the Generating Facility.
2. Capability to operate at any fixed reactive power ("kVAR") output at any power level within the full reactive power range calculated in (1) above while the Generating Facility is producing power.
3. Capability to operate in Automatic Voltage Regulating ("AVR") mode to regulate the voltage to a selected voltage set point within a voltage range of 0.95 pu to 1.05 pu, to the extent that such voltage regulation can be achieved with the available reactive power calculated in Section (F1). Voltage regulation shall be within 0.50% of the voltage set point.

R14-2-2625. Advanced Inverter Requirements

A. Generating Facilities utilizing inverter based technology at the AC output range from 1 kW to 10 MW level shall be connected via advanced inverter(s), capable of, at minimum, the advanced grid support features specified in R14-2-2625(B). The advanced inverter(s) shall have monitoring and remote control capability using the communication methods and protocols listed in the Utility's Interconnection Manual.

B. At a minimum, the following grid support features are required unless otherwise specified by the Utility's Interconnection Manual:

1. Volt/VAR Mode – Provide voltage/VAR control through dynamic reactive power injection through autonomous responses to local voltage measurement
2. Volt/Watt Mode – Provide voltage/watt control though dynamic active power injection through autonomous responses to local voltage measurement
3. Fixed Power Factor – Provide reactive power by a fixed power factor
4. Anti-Islanding – Support anti-Islanding to trip off under extended anomalous conditions
5. Low/High Voltage Ride-through (LHVRT) – Provide ride-through of low/high voltage excursions beyond normal limits
6. Low/High Frequency ride-through (LHFRT) – Provide ride-through of low/high frequency excursions beyond normal limits
7. Ramping- Capability to define active and reactive power ramp rates
8. Soft-Start Reconnection – Reconnect after grid power is restored
9. Remote ON/OFF - Capability to remotely turn ON or turn OFF the inverter

10. Power Curtailment – Capability to remotely curtail the active power production within the range of 0% to 100%
11. Frequency/Watt Mode – Provide Frequency/Watt control to counteract frequency excursions beyond normal limits by decreasing or increasing real power.

R14-2-2626. Dispute Resolution

A. If a dispute arises between the parties regarding a provision contained in this Document and/or Agreement, or a party's performance of its obligations as stated in this Document and or Agreement, or any other matter governed by the terms of the Document and/or Agreement, the parties agree that such dispute will be resolved in the manner prescribed in this section.

1. Notification and Response. Promptly upon the occurrence of the dispute, the aggrieved party will notify the other party in writing (the "Claimant's Statement"), setting forth in sufficient detail the basis for the dispute, the aggrieved party's position, and its proposal for resolution of the dispute. Within ten (10) business days following receipt of the Claimant's Statement, the other party will respond in writing (the "Responsive Statement") setting forth in sufficient detail the respondent's position and its proposal for resolution of the dispute.
2. Good Faith Negotiation. Within ten (10) business days after the aggrieved party's receipt of the Responsive Statement, the parties will meet and attempt in good faith to expeditiously negotiate a resolution to the dispute. In attendance for each party at that opening session and throughout the dispute resolution procedure described in this section will be a representative or representatives of each party who are authorized to act for the party and resolve this dispute without resort to higher authority.
3. Dispute Resolution by Mediation. Any dispute(s) arising out of or relating to this Document may be subject to binding mediation by a mututally acceptable third party mediator. If no mediator is mutually acceptable, then a mediator may be appointed by the Arizona Office of the American Arbitration Association, at the request of any party. Such mediation shall be subject to the laws of the State of Arizona. The costs of third party mediation shall be borne by the losing party as prescribed by the mediator. This section shall not preclude one or both parties from requesting mediation by the Commission.
4. Arizona Corporation Commission. In the event such dispute is not resolved by mediation, then the parties consent to resolution of any such dispute by the Commission.

R14-2-2627 Pre-Application Report

A. Pre-Application Report Request

1. A Pre-Application Report Request shall include:
   a. Contact information (name, address, phone and email).
   b. A proposed Point of Interconnection. The proposed Point of Interconnection shall be defined by latitude and longitude, site map, street address, utility equipment number (e.g., pole number),meter number, account number or some combination of the above sufficient to clearly identify the location of the Point of Interconnection.
   c. Generation technology and fuel source.
   d. A non-refundable processing fee, if a tariff containing such a fee is approved by the Commission.
2. In requesting; a Pre-Application Report, a potential Applicant understands that:
   a. The existence of "Available Capacity" in no way implies that an interconnection up to this level may be completed without impacts since there are many variables studied as part of the interconnection review process.
   b. The distribution system is dynamic and subject to change.
   c. Data provided in the Pre-Application Report may become outdated and not useful at the time of submission of the complete Interconnection Request.

B. Pre-Application Report. Within 12 calendar days of receipt of a completed Pre-Application Report Request, the Utility shall provide a Pre-Application Report. The Pre-Application Report shall include the following; information, if available:

1. Total Capacity (MW) of substation/area bus or bank and circuit likely to serve proposed site.
2. Allocated Capacity (MW) of substation/area bus or bank and circuit likely to serve proposed site
3. Queued Capacity (MW) of substation/area bus or bank and circuit likely to serve proposed site.
4. Available Capacity (MW) of substation/area bus or bank and circuit most likely to serve proposed site.
5. Whether the proposed Generating Facility is located on an area, spot or radial network.
6. Substation nominal distribution voltage or transmission nominal voltage if applicable.
7. Nominal distribution circuit voltage at the proposed site.
8. Approximate circuit distance between the proposed site and the substation.
9. Relevant Line Section(s) peak load estimate, and minimum load data, when available.

10. Number of protective devices and number of voltage regulating devices between the proposed site and the substation/area.
11. Whether or not three-phase power is available at the site and/or distance from three-phase service.
12. Limiting conductor rating from proposed Point of Interconnection to distribution substation.
13. Based on proposed Point of Interconnection, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.

C. The Pre-Application Report need only include pre-existing data. A Pre- Application Report request does not obligate the Utility to conduct a study or other analysis of the proposed project in the event that data is not available. If the Utility cannot complete all or some of a Pre-Application Report due to lack of available data, the Utility will provide the potential Applicant with a Pre- Application Report that includes the information that is available and identify the information that is unavailable. Notwithstanding any of the provisions of this Section, the Utility shall, in good faith, provide Pre-Application Report data that represents the best available information at the time of reporting.

R14-2-2628. Utility Reporting Requirements

A. Interconnection Manual. Each Utility shall file an Interconnection Manual for approval with the Commission no later than 90 calendar days after adoption of this Article. If the utility subsequently makes any substantive revisions to its Interconnection Manual, it shall docket the revisions at least 60 days prior to the proposed effective date, for Commission approval. If the change is contested, the Staff may seek a suspension of the matter for further review. If the substantive revision to the Interconnection Manual is related to health or safety, then the revision shall be docketed with the Commission and the revision shall become effective immediately, subject to subsequent review and approval by the Commission. Once any substantive revisions to the utility's Interconnection Manual have been approved by the Commission, the utility shall docket an updated Interconnection Manual with the Commission within 10 days of the Commission's order approving the changes.

B. Documentation of projects. Each Utility shall maintain records concerning each Application received for Interconnection and Parallel Operation of Distributed Generation. Such records shall include the date each Application is received, documents generated in the course of processing each Application, correspondence regarding each Application, the final disposition of each Application, and the date on which the Application was approved (if approved).

C. Annual Interconnection report to the Commission. By March 30 of each year, each Utility shall file with the Commission a Distributed Generation Interconnection report for the preceding calendar year that shall include, for the reporting period, a summary of the number of complete Applications received, the number of complete Applications approved, the number of complete Applications denied by level, and the reasons for denial. The annual report shall also include a list of special contracts, approved by the Commission during the reporting period, that provide discounted rates to consumers as an alternative to self-generation.